

## Question 1 of 231



A 21-year-old woman with a history of eczema presents with a change in the colour of her skin affecting the hands and feet symmetrically:



What is the most likely diagnosis?

- A. Excessive topical corticosteroid use
- B. Leprosy
- C. Tuberous sclerosis
- ☒ D. Vitiligo
- E. Pityriasis versicolor

## Question stats

A	<div style="width: 9.8%;"></div>	9.8%
B	<div style="width: 0.4%;"></div>	0.4%
C	<div style="width: 0.4%;"></div>	0.4%
D	<div style="width: 83.1%;"></div>	83.1%
E	<div style="width: 6.3%;"></div>	6.3%

83.1% of users answered this question correctly

Session score = 100%

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Vitiligo

**Vitiligo**



Vitiligo is an autoimmune condition which results in the loss of melanocytes and consequent depigmentation of the skin. It is thought to affect around 1% of the population and symptoms typically develop by the age of 20-30 years.

#### Features

- well demarcated patches of depigmented skin
- the peripheries tend to be most affected
- trauma may precipitate new lesions (Koebner phenomenon)

#### Associated conditions

- type 1 diabetes mellitus
- Addison's disease
- autoimmune thyroid disorders
- pernicious anaemia
- alopecia areata

#### Management

- sun block for affected areas of skin
- camouflage make-up
- topical corticosteroids may reverse the changes if applied early
- there may also be a role for topical tacrolimus and phototherapy, although caution needs to be exercised with light-skinned patients

**Rate question:**



## Question 10 of 231



A 79-year-old woman presents with an itchy, blistering rash. Examination of her mouth is unremarkable.



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What is the most likely diagnosis?



A. Dermatitis herpetiformis

B. Drug reaction to lisinopril



C. Bullous pemphigoid

D. Pemphigus vulgaris

E. Epidermolysis bullosa

## Blisters/bullae

- no mucosal involvement (in exams at least\*): bullous pemphigoid
- mucosal involvement: pemphigus vulgaris

## Question stats

A	1.3%
B	0.6%
C	78.5%
D	11.9%
E	7.7%

78.5% of users answered this question correctly

Session score = 50%

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[DermNet NZ](#)

Bullous pemphigoid

[British Association of Dermatologists](#)

Bullous pemphigoid guidelines

## Bullous pemphigoid

Bullous pemphigoid is an autoimmune condition causing sub-epidermal blistering



of the skin. This is secondary to the development of antibodies against hemidesmosomal proteins BP180 and BP230

Bullous pemphigoid is more common in elderly patients. Features include

- itchy, tense blisters typically around flexures
- the blisters usually heal without scarring
- mouth is usually spared\*

Skin biopsy

- immunofluorescence shows IgG and C3 at the dermoepidermal junction

Management

- referral to dermatologist for biopsy and confirmation of diagnosis
- oral corticosteroids are the mainstay of treatment
- topical corticosteroids, immunosuppressants and antibiotics are also used

\*in reality around 10-50% of patients have a degree of mucosal involvement. It would however be unusual for an exam question to mention mucosal involvement as it is seen as a classic differentiating feature between pemphigoid and pemphigus.

**Rate question:**



### Question 3 of 131



A 4-year-old boy develops multiple tear-drop papules on his trunk and limbs. He is otherwise well. A diagnosis of guttate psoriasis is suspected. What is the most appropriate management?



- A. Oral penicillin for 14 days
- B. Reassurance + topical treatment if lesions are symptomatic
- C. Oral penicillin for 14 days + topical treatment if lesions are symptomatic
- D. Referral to secondary care
- E. Oral corticosteroids

The British Association of Dermatologists state in their psoriasis guidelines that 'evidence does not support a therapeutic benefit from antibiotic therapy'.

#### Psoriasis: guttate

Guttate psoriasis is more common in children and adolescents. It may be precipitated by a streptococcal infection 2-4 weeks prior to the lesions appearing

#### Features

- tear drop papules on the trunk and limbs

#### Management

- most cases resolve spontaneously within 2-3 months
- there is no firm evidence to support the use of antibiotics to eradicate streptococcal infection
- topical agents as per psoriasis
- UVB phototherapy
- tonsillectomy may be necessary with recurrent episodes

#### Rate question:

#### Question stats

A	<div></div>	3.1%
B	<div></div>	60.5%
C	<div></div>	13.5%
D	<div></div>	19.4%
E	<div></div>	3.5%

60.5% of users answered this question correctly

Session score = 66.7%

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Guttate psoriasis



# Question 4 of 131



Each one of the following is associated with hirsutism, except:

- ✓ A. **Porphyria cutanea tarda**
- ✗ B. **Congenital adrenal hyperplasia**
- C. Polycystic ovarian syndrome
- D. Adrenal tumour
- E. Cushing's syndrome

Porphyria cutanea tarda is a cause of hypertrichosis rather than hirsutism

## Hirsutism and hypertrichosis

/hirsutism is often used to describe androgen-dependent hair growth in women, with hypertrichosis being used for androgen-independent hair growth

Polycystic ovarian syndrome is the most common causes of hirsutism. Other causes include:

- Cushing's syndrome
- congenital adrenal hyperplasia
- androgen therapy
- obesity: due to peripheral conversion oestrogens to androgens
- adrenal tumour
- androgen secreting ovarian tumour
- drugs: phenytoin

Assessment of hirsutism

- Ferriman-Gallwey scoring system: 9 body areas are assigned a score of 0 - 4, a score > 15 is considered to indicate moderate or severe hirsutism

Management of hirsutism

- advise weight loss if overweight
- cosmetic techniques such as waxing/bleaching - not available on the NHS
- consider using combined oral contraceptive pills such as co-cyprindiol (Dianette) or ethinylestradiol and drospirenone (Yasmin). Co-cyprindiol should not be used long-term due to the increased risk of venous thromboembolism
- facial hirsutism: topical eflornithine - contraindicated in pregnancy and breast-feeding

Causes of hypertrichosis

- drugs: minoxidil, ciclosporin, diazoxide
- congenital hypertrichosis lanuginosa, congenital hypertrichosis terminalis

## Question stats

A	<div style="width: 80.9%;"></div>	80.9%
B	<div style="width: 4.9%;"></div>	4.9%
C	<div style="width: 0.5%;"></div>	0.5%
D	<div style="width: 5.3%;"></div>	5.3%
E	<div style="width: 8.4%;"></div>	8.4%

80.9% of users answered this question correctly

Session score = 50%

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Hirsutism

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Hirsutism



- porphyria cutanea tarda
- anorexia nervosa

**Rate question:**



### Question 5 of 131



A 14-year-old male is reviewed by his GP due to a patch of scaling and hair loss on the right side of his head. A skin scraping is sent which confirms a diagnosis of tinea capitis. Which organism is most likely to be responsible?

- ✓ A. *Trichophyton tonsurans*
- B. *Microsporum distortum*
- ✗ C. *Trichophyton verrucosum*
- D. *Microsporum audouinii*
- E. *Candida*

#### Question stats

A	<div style="width: 66.5%;"></div>	66.5%
B	<div style="width: 5.9%;"></div>	5.9%
C	<div style="width: 18.8%;"></div>	18.8%
D	<div style="width: 4.8%;"></div>	4.8%
E	<div style="width: 4%;"></div>	4%

66.5% of users answered this question correctly

Session score = 40%

### Tinea

Tinea is a term given to dermatophyte fungal infections. Three main types of infection are described depending on what part of the body is infected

- tinea capitis - scalp
- tinea corporis - trunk, legs or arms
- tinea pedis - feet

#### Tinea capitis (scalp ringworm)

- a cause of scarring alopecia mainly seen in children
- if untreated a raised, pustular, spongy/boggy mass called a kerion may form
- most common cause is *Trichophyton tonsurans* in the UK and the USA
- may also be caused by *Microsporum canis* acquired from cats or dogs
- diagnosis: lesions due to *Microsporum canis* green fluorescence under Wood's lamp\*. However the most useful investigation is scalp scrapings
- management (based on CKS guidelines): oral antifungals: terbinafine for *Trichophyton tonsurans* infections and griseofulvin for *Microsporum* infections. Topical ketoconazole shampoo should be given for the first two weeks to reduce transmission

#### Tinea corporis

- causes include *Trichophyton rubrum* and *Trichophyton verrucosum* (e.g. From contact with cattle)
- well-defined annular, erythematous lesions with pustules and papules
- may be treated with oral fluconazole

#### Tinea pedis (athlete's foot)

- characterised by itchy, peeling skin between the toes
- common in adolescence

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Fungal skin infection - scalp



\*lesions due to Trichophyton species do not readily fluoresce under Wood's lamp

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# Question 6 of 131

A 39-year-old man asks you to look at a skin lesion on the dorsum of his hand. It has been present for the past two years and has not changed recently.



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What is the most likely diagnosis?

- ✓ A. **Granuloma annulare**
- B. Basal cell carcinoma
- C. Tinea corporis
- D. Xanthoma
- E. Lichen planus

## Question stats

A	<div style="width: 70.9%;"></div>	70.9%
B	<div style="width: 19.4%;"></div>	19.4%
C	<div style="width: 3.3%;"></div>	3.3%
D	<div style="width: 3.2%;"></div>	3.2%
E	<div style="width: 3.1%;"></div>	3.1%

70.9% of users answered this question correctly

Session score = 50%

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Picture of granuloma annulare

## Granuloma annulare

### Basics

- papular lesions that are often slightly hyperpigmented and depressed centrally
- typically occur on the dorsal surfaces of the hands and feet, and on the extensor aspects of the arms and legs

A number of associations have been proposed to conditions such as diabetes mellitus but there is only weak evidence for this



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# Question 7 of 131



A 54-year-old woman is prescribed topical fusidic acid for a small patch of impetigo around her nose. She has recently been discharged from hospital following varicose vein surgery. Seven days after starting treatment there has been no change in her symptoms. Examination reveals a persistent small, crusted area around the right nostril. Whilst awaiting the results of swabs, what is the most appropriate management?

- A. Oral vancomycin
- B. Oral erythromycin
- C. Topical metronidazole
- D. **Topical mupirocin**
- E. Oral flucloxacillin



## Question stats

A	2.6%
B	1.9%
C	3.9%
D	51.6%
E	39.9%

51.6% of users answered this question correctly

Session score = 42.9%

MRSA should be considered given the recent hospital stay and lack of response to fusidic acid. Topical mupirocin is therefore the most appropriate treatment.

## Impetigo: management

Limited, localised disease

- topical fusidic acid is first-line
- topical retapamulin is used second-line if fusidic acid has been ineffective or is not tolerated
- MRSA is not susceptible to either fusidic acid or retapamulin. Topical mupirocin (Bactroban) should therefore be used in this situation

Extensive disease

- oral flucloxacillin
- oral erythromycin if penicillin allergic

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Impetigo guidelines



## Question 8 of 131

Please look at the lesion on the lower lip:



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What is the most likely diagnosis?

- A. Squamous cell carcinoma
- ✓ B. Venous lake
- C. Peutz-Jeghers syndrome
- D. Kaposi sarcoma
- E. Malignant melanoma

### Venous lake

Angiomas on the lips are called venous lakes. Diagnosis is usually clinical and no treatment is required except for cosmetic reasons.

Rate question:

### Question stats

A	5.5%
B	52.9%
C	12.7%
D	13.3%
E	15.6%

52.9% of users answered this question correctly

Session score = 50%

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### Question 9 of 131



A 72-year-old woman is diagnosed with a number of erythematous, rough lesions on the back of her hands. A diagnosis of actinic keratoses is made. What is the most appropriate management?

- A. Reassurance
- B. Urgent referral to a dermatologist
- ✓ C. Topical fluorouracil cream
- D. Review in 3 months
- ✗ E. Topical betnovate

#### Question stats

A	11.2%
B	14.6%
C	64.8%
D	4.9%
E	4.4%

64.8% of users answered this question correctly

Session score = 44.4%

### Actinic keratoses

Actinic, or solar, keratoses (AK) is a common premalignant skin lesion that develops as a consequence of chronic sun exposure

#### Features

- small, crusty or scaly, lesions
- may be pink, red, brown or the same colour as the skin
- typically on sun-exposed areas e.g. temples of head
- multiple lesions may be present

#### Management options include

- prevention of further risk: e.g. sun avoidance, sun cream
- fluorouracil cream: typically a 2 to 3 week course. The skin will become red and inflamed - sometimes topical hydrocortisone is given following fluorouracil to help settle the inflammation
- topical diclofenac: may be used for mild AKs. Moderate efficacy but much fewer side-effects
- topical imiquimod: trials have shown good efficacy
- cryotherapy
- curettage and cautery

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[British Association of Dermatologists](#)

2007 Actinic keratoses guidelines

[DermNet NZ](#)

Actinic keratoses



## Question 10 of 131



A 43-year-old presents with itchy lesions on the soles of both feet. These have been present for the past two months. On examination small blisters are seen with surrounding dry and cracked skin. What is the most likely diagnosis?

- A. Porphyria cutanea tarda
- B. Pustular psoriasis
- C. Pompholyx
- D. Bullous pemphigoid
- E. Pemphigus



## Question stats

A	8.5%
B	20.8%
C	61.5%
D	5.8%
E	3.4%

61.5% of users answered this question correctly

Session score = 40%

## Pompholyx

Pompholyx is a type of eczema which affects both the hands (cheiropompholyx) and the feet (pedopompholyx). It is also known as dyshidrotic eczema

## Features

- small blisters on the palms and soles
- pruritic, sometimes burning sensation
- once blisters burst skin may become dry and crack

## Management

- cool compresses
- emollients
- topical steroids

## Rate question:

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Photos of pompholyx



## Question 11 of 131





A 30-year-old woman presents with a painful 'rash' on her shins:



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These have been present for the past 2 weeks. There is no past medical history of note and she takes no regular medications. What is the most useful next investigation?

- A. Liver function tests
-  B. Anti-nuclear antibody
- C. ECG
- D. HIV test
-  E. Chest x-ray

The likely diagnosis here is erythema nodosum (EN). All these tests may have a place but a chest x-ray is important as it helps exclude sarcoidosis and tuberculosis, two important cause of EN

## Question stats

A	8.3%
B	24%
C	0.4%
D	6.9%
E	60.4%

60.4% of users answered this question correctly

Session score = 36.4%

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[DermNet NZ](#)

Erythema nodosum



## Erythema nodosum

### Overview

- inflammation of subcutaneous fat
- typically causes tender, erythematous, nodular lesions
- usually occurs over shins, may also occur elsewhere (e.g. forearms, thighs)
- usually resolves within 6 weeks
- lesions heal without scarring

### Causes

- infection: streptococci, TB, brucellosis
- systemic disease: sarcoidosis, inflammatory bowel disease, Behcet's
- malignancy/lymphoma
- drugs: penicillins, sulphonamides, combined oral contraceptive pill
- pregnancy

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# Question 12 of 131 ✗



A 19-year-old asks for help with a long-standing problem of spots, particularly around his forehead:



Which one of the following is the best descriptive term for the skin lesions?

- ✓ A. **Moderate acne vulgaris**
- ✗ B. **Severe acne vulgaris**
- C. Acne conglobata
- D. Acne fulminans
- E. Mild acne vulgaris

Widespread non-inflammatory lesions and numerous papules and pustules point to a diagnosis of moderate acne vulgaris

## Acne vulgaris: features

Acne is a disease of the pilosebaceous unit. Several different types of acne lesions are usually seen in each patient

Comedones are due to a dilated sebaceous follicle

- if the top is closed a whitehead is seen
- if the top opens a blackhead forms

Inflammatory lesions form when the follicle bursts releasing irritants

- papules
- pustules

## Question stats

A	<div style="width: 80.6%;"></div>	80.6%
B	<div style="width: 7.6%;"></div>	7.6%
C	<div style="width: 1.6%;"></div>	1.6%
D	<div style="width: 0.5%;"></div>	0.5%
E	<div style="width: 9.7%;"></div>	9.7%

80.6% of users answered this question correctly

Session score = 33.3%

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An excessive inflammatory response may result in:

- nodules
- cysts

This sequence of events can ultimately cause scarring

- ice-pick scars
- hypertrophic scars

In contrast, **drug-induced acne** is often monomorphic (e.g. pustules are characteristically seen in steroid use)

**Acne fulminans** is very severe acne associated with systemic upset (e.g. fever). Hospital admission is often required and the condition usually responds to oral steroids

**Rate question:**





## Question 11 of 231



A 62-year-old man presents with a lesion on the right side of his nose. He is unsure how long it has been there.



What is the most likely diagnosis?

- A. Desmoplastic trichoepithelioma
-  B. Squamous cell carcinoma
- C. Impetigo
-  D. Basal cell carcinoma
- E. Actinic keratosis

The rolled, pearly edges with telangiectasia surrounding a central crater make basal cell carcinoma the most likely diagnosis.

### Basal cell carcinoma

Basal cell carcinoma (BCC) is one of the three main types of skin cancer. Lesions are also known as rodent ulcers and are characterised by slow-growth and local invasion. Metastases are extremely rare. BCC is the most common type of cancer in the Western world.

#### Features

- many types of BCC are described. The most common type is nodular BCC,

#### Question stats

A	0.4%
B	12.7%
C	0.3%
D	84.9%
E	1.6%

84.9% of users answered this question correctly

Session score = 45.5%

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Basal cell carcinoma



which is described here

- sun-exposed sites, especially the head and neck account for the majority of lesions
- initially a pearly, flesh-coloured papule with telangiectasia
- may later ulcerate leaving a central 'crater'

Management options:

- surgical removal
- curettage
- cryotherapy
- topical cream: imiquimod, fluorouracil
- radiotherapy

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# Question 17 of 131



This 60-year-old woman who is being treated for heartburn comes for review. She has developed some spots on her lips:



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## Question stats

A	<div style="width: 49%;"></div>	49%
B	<div style="width: 0.9%;"></div>	0.9%
C	<div style="width: 16.6%;"></div>	16.6%
D	<div style="width: 30%;"></div>	30%
E	<div style="width: 3.5%;"></div>	3.5%

49% of users answered this question correctly

Session score = 35.3%

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What is the most likely diagnosis?



- CREST syndrome
- Oesophageal cancer
- Vitamin C deficiency
- Peutz-Jeghers syndrome
- Iron-deficiency anaemia

The heartburn may be explained by oesophageal dysmotility, a feature of CREST syndrome. The lesions on her lips are telangiectasia. She also has the typical tightening of the facial skin seen in patients with systemic sclerosis.

## Systemic sclerosis

Systemic sclerosis is a condition of unknown aetiology characterised by hardened, sclerotic skin and other connective tissues. It is four times more common in females

There are three patterns of disease:

Limited cutaneous systemic sclerosis

- Raynaud's may be first sign



- scleroderma affects face and distal limbs predominately
- associated with anti-centromere antibodies
- a subtype of limited systemic sclerosis is CREST syndrome: Calcinosis, Raynaud's phenomenon, oEsophageal dysmotility, Sclerodactyly, Telangiectasia

#### Diffuse cutaneous systemic sclerosis

- scleroderma affects trunk and proximal limbs predominately
- associated with scl-70 antibodies
- hypertension, lung fibrosis and renal involvement seen
- poor prognosis

#### Scleroderma (without internal organ involvement)

- tightening and fibrosis of skin
- may be manifest as plaques (morphoea) or linear

#### Antibodies

- ANA positive in 90%
- RF positive in 30%
- anti-scl-70 antibodies associated with diffuse cutaneous systemic sclerosis
- anti-centromere antibodies associated with limited cutaneous systemic sclerosis

**Rate question:**



### Question 13 of 131



A 36-year-old woman is reviewed. She presented 4 weeks ago with itchy dry skin on her arms and was diagnosed as having atopic eczema. She was prescribed hydrocortisone 1% cream with an emollient. Unfortunately there has been no improvement in her symptoms. What is the next step in management, alongside continued regular use of an emollient?



- A. **Betamethasone valerate 0.1%**
- B. **Clobetasone butyrate 0.05%**
- C. Clobetasol propionate 0.05%
- D. Topical tetracycline
- E. Regular wet wraps

#### Topical steroids

- moderate: Clobetasone butyrate 0.05%
- potent: Betamethasone valerate 0.1%
- very potent: Clobetasol propionate 0.05%

Clobetasone butyrate 0.05% is a moderately potent topical steroid and would be the most suitable next step in management. It is important to note the potency difference between two very similar sounding steroids - Clobetasone butyrate 0.05% (moderate) and Clobetasol propionate 0.05% (very potent)

#### Eczema: topical steroids

Use weakest steroid cream which controls patients symptoms

The table below shows topical steroids by potency

Mild	Moderate	Potent	Very potent
Hydrocortisone 0.5-2.5%	Betamethasone valerate 0.025% (Betnovate RD)	Fluticasone propionate 0.05% (Cutivate)	Clobetasol propionate 0.05% (Dermovate)
	Clobetasone butyrate 0.05% (Eumovate)	Betamethasone valerate 0.1% (Betnovate)	

#### Finger tip rule

- 1 finger tip unit (FTU) = 0.5 g, sufficient to treat a skin area about twice that of the flat of an adult hand

#### Question stats

A		31.8%
B		53.5%
C		12.2%
D		0.5%
E		2.1%

53.5% of users answered this question correctly

Session score = 30.8%

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#### External links

[British Association of Dermatologists](#)

Atopic eczema guidelines



Topical steroid doses for eczema in adults

Area of skin	Fingertip units per dose
Hand and fingers (front and back)	1.0
A foot (all over)	2.0
Front of chest and abdomen	7.0
Back and buttocks	7.0
Face and neck	2.5
An entire arm and hand	4.0
An entire leg and foot	8.0

Rate question:



Question 14 of 131



A 7-year-old girl is brought to surgery due to the development of several small, umbilicated lesions on the thigh of her left leg. There has been no similar lesions in the past, and she is otherwise well apart from a history of asthma. What is the most appropriate management?



- A. Reassure
- B. Trial of hydrocortisone
- C. Make discreet enquiries about possible sexual abuse
- D. Refer to secondary care
- E. Topical salicylic acid

Question stats

A	<div style="width: 77.1%;"></div>	77.1%
B	<div style="width: 4.5%;"></div>	4.5%
C	<div style="width: 5.5%;"></div>	5.5%
D	<div style="width: 5.5%;"></div>	5.5%
E	<div style="width: 7.4%;"></div>	7.4%

77.1% of users answered this question correctly

Session score = 35.7%

Molluscum contagiosum

Molluscum contagiosum is caused by a pox DNA virus infection. It is typically seen in younger children and results in characteristic small, pearly, umbilicated lesions

Molluscum contagiosum is highly infectious.

Lesions may be present for up to 12 months and usually resolve spontaneously. Whilst various treatments may be effective in removing the lesions (e.g. surgery, cryotherapy, topical agents) no treatment is recommend in the initial phase due to the benign nature of the condition

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# Question 15 of 131



A 68-year-old man asks you to 'check his moles'. You look at the following area of skin on his back:

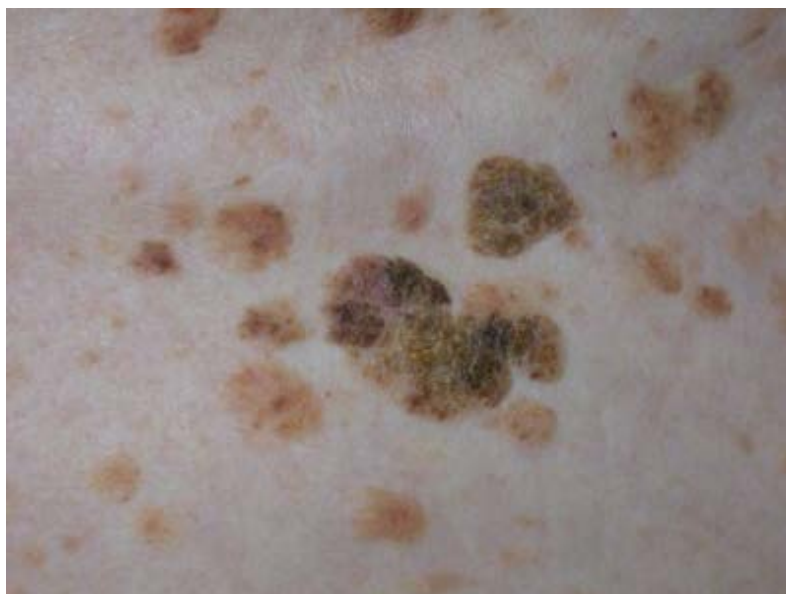




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What is the most likely diagnosis?

- A. Actinic keratosis
- B. Benign mole
- C. Bowen's disease
-  D. Malignant melanoma
-  E. Seborrhoeic keratosis

## Question stats

A	10.1%
B	1.2%
C	2.6%
D	18.9%
E	67.2%

67.2% of users answered this question correctly

Session score = 33.3%

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[DermNet NZ](#)

Seborrhoeic keratoses

This lesion has the typical warty, 'stuck-on' appearance of a seborrhoeic keratosis.

## Seborrhoeic keratoses

Seborrhoeic keratoses are benign epidermal skin lesions seen in older people.

### Features

- large variation in colour from flesh to light-brown to black
- have a 'stuck-on' appearance
- keratotic plugs may be seen on the surface

### Management



- reassurance about the benign nature of the lesion is an option
- options for removal include curettage, cryosurgery and shave biopsy

**Rate question:**

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# Question 16 of 131



A 62-year-old woman presents with a 'volcano' like spot on her left arm, which has appeared over the past 3 months. She initially thought it may be a simple spot but it has not gone away. On examination she has a 5 mm red, raised lesion with a central keratin filled crater. A clinical diagnosis of probable keratoacanthoma is made. What is the most suitable management?



- A. Reassure will spontaneously involute within 3 months
- B. Urgent referral to dermatology
- C. Topical 5-FU
- D. Non-urgent to dermatology
- E. Topical hydrocortisone

Whilst keratoacanthoma is a benign lesion it is difficult clinically to exclude squamous cell carcinoma so urgent excision is advised

## Keratoacanthoma

Keratoacanthoma is a benign epithelial tumour. They are more frequent in middle age and do not become more common in old age (unlike basal cell and squamous cell carcinoma)

Features - said to look like a volcano or crater

- initially a smooth dome-shaped papule
- rapidly grows to become a crater centrally-filled with keratin

Spontaneous regression of keratoacanthoma within 3 months is common, often resulting in a scar. Such lesions should however be urgently excised as it is difficult clinically to exclude squamous cell carcinoma. Removal also may prevent scarring

Rate question:

## Question stats

A	<div></div>	13.7%
B	<div></div>	52.3%
C	<div></div>	10%
D	<div></div>	22.9%
E	<div></div>	1.1%

52.3% of users answered this question correctly

Session score = 31.3%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet NZ](#)

Keratoacanthoma pictures



### Question 18 of 131



A 54-year-old man presents with a brown velvety rash on the back of his neck around his axilla. A clinical diagnosis of acanthosis nigricans is made. Which one of the following conditions is most associated with this kind of rash?



- A. Hypothyroidism
- B. Psoriasis
- C. Non-alcoholic steatohepatitis
- D. Ulcerative colitis
- E. Chronic pancreatitis

#### Question stats

A		49.9%
B		2.6%
C		11.8%
D		24.2%
E		11.5%

49.9% of users answered this question correctly

Session score = 38.9%

### Acanthosis nigricans

Describes symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin

#### Causes

- gastrointestinal cancer
- insulin-resistant diabetes mellitus
- obesity
- polycystic ovarian syndrome
- acromegaly
- Cushing's disease
- hypothyroidism
- familial
- Prader-Willi syndrome
- drugs: oral contraceptive pill, nicotinic acid

#### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

#### External links

[DermNet NZ](#)

Acanthosis nigricans

#### Rate question:



# Question 19 of 131



A 48-year-old man with a history of psoriasis develops plaques on his face. Of the following options, which one is the most appropriate treatment?



A. Hydrocortisone 1%



B. Calcipotriol

C. Coal tar

D. Dithranol

E. Tacrolimus

Difficult question, particularly as there is an emphasis on patient-doctor choice when deciding upon treatment in psoriasis. Vitamin D analogues can be used in this situation but calcipotriol is not recommended as it may cause irritation - calcitriol and tacalcitol are alternatives. Mild potency topical steroids are useful for the management of facial psoriasis. Coal tar is smelly and messy - most patients would not tolerate facial application

## Psoriasis: management

SIGN released guidelines in 2010 on the management of psoriasis and psoriatic arthropathy. Please see the link for more details.

Chronic plaque psoriasis

- regular emollients may help to reduce scale loss and reduce pruritus
- for acute control SIGN recommend: 'Short term intermittent use of a potent topical corticosteroid or a combined potent corticosteroid plus calcipotriol

ointment is recommended to gain rapid improvement in plaque psoriasis.'

- 'For long term topical treatment of plaque psoriasis a vitamin D analogue (e.g. Calcipotriol) is recommended.'
- 'If a vitamin D analogue is ineffective or not tolerated then consider coal tar (solution, cream or lotion), tazarotene gel, or short contact dithranol (30 minute exposure in patients with a small number of relatively large plaques of psoriasis).

Steroids in psoriasis

- topical steroids are commonly used in flexural psoriasis and there is also a role for mild steroids in facial psoriasis. If steroids are ineffective for these conditions vitamin D analogues or tacrolimus ointment should be used second line
- SIGN caution against the long term use of potent or very potent topical steroids due to the risk of side-effects

Scalp psoriasis

## Question stats

A		54.3%
B		31.5%
C		4.2%
D		4.8%
E		5.2%

54.3% of users answered this question correctly

Session score = 36.8%

## RCGP curriculum

15.10 - Skin Problems

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## External links

[SIGN](#)

2010 Psoriasis guidelines



- for short term control SIGN recommend either the use of potent topical corticosteroids or a combination of a potent corticosteroid and a vitamin D

analogue

- 'For patients with thick scaling of the scalp, initial treatment with overnight application of salicylic acid, tar preparations, or oil preparations (eg olive oil, coconut oil) to remove thick scale is recommended.

## Secondary care management

Phototherapy

- narrow band ultraviolet B light (311-313nm) is now the treatment of choice
- photochemotherapy is also used - psoralen + ultraviolet A light (PUVA)
- adverse effects: skin ageing, squamous cell cancer (not melanoma)

Systemic therapy

- methotrexate: useful if associated joint disease
- ciclosporin
- systemic retinoids
- biological agents: infliximab, etanercept and adalimumab
- ustekinumab (IL-12 and IL-23 blocker) is showing promise in early trials

Mechanism of action of commonly used drugs:

- coal tar: probably inhibit DNA synthesis
- calcipotriol: vitamin D analogue which reduces epidermal proliferation and restores a normal horny layer
- dithranol: inhibits DNA synthesis, wash off after 30 mins, SE: burning, staining

**Rate question:**



# Question 20 of 131



A 62-year-old male is referred to dermatology by his GP due to a lesion over his shin. On examination shiny, painless areas of yellow skin over the shin are found with abundant telangiectasia. What is the most likely diagnosis?



- A. Pretibial myxoedema
- B. Necrobiosis lipoidica diabetorum
- C. Erythema nodosum
- D. Pyoderma gangrenosum
- E. Syphilis

## Question stats

A		12%
B		81.7%
C		2.1%
D		3.8%
E		0.4%

81.7% of users answered this question correctly

Session score = 40%

## Shin lesions

The differential diagnosis of shin lesions includes the following conditions:

- erythema nodosum
- pretibial myxoedema
- pyoderma gangrenosum
- necrobiosis lipoidica diabetorum

Below are the characteristic features:

### Erythema nodosum

- symmetrical, erythematous, tender, nodules which heal without scarring
- most common causes are streptococcal infections, sarcoidosis, inflammatory bowel disease and drugs (penicillins, sulphonamides, oral contraceptive pill)

### Pretibial myxoedema

- symmetrical, erythematous lesions seen in Graves' disease
- shiny, orange peel skin

### Pyoderma gangrenosum

- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- idiopathic in 50%, may also be seen in inflammatory bowel disease, connective tissue disorders and myeloproliferative disorders

### Necrobiosis lipoidica diabetorum

- shiny, painless areas of yellow/red skin typically on the shin of diabetics

## RCGP curriculum

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## External links

[DermNet NZ](#)

Picture of erythema nodosum

[DermIS.net](#)

Picture of pretibial myxoedema

[DermNet NZ](#)

Picture of pyoderma gangrenosum

[DermNet NZ](#)

Picture of necrobiosis lipoidica



often associated with telangiectasia

**Rate question:**



# Question 21 of 131



A woman who is 30 weeks pregnant asks you about an itchy rash on her abdomen:

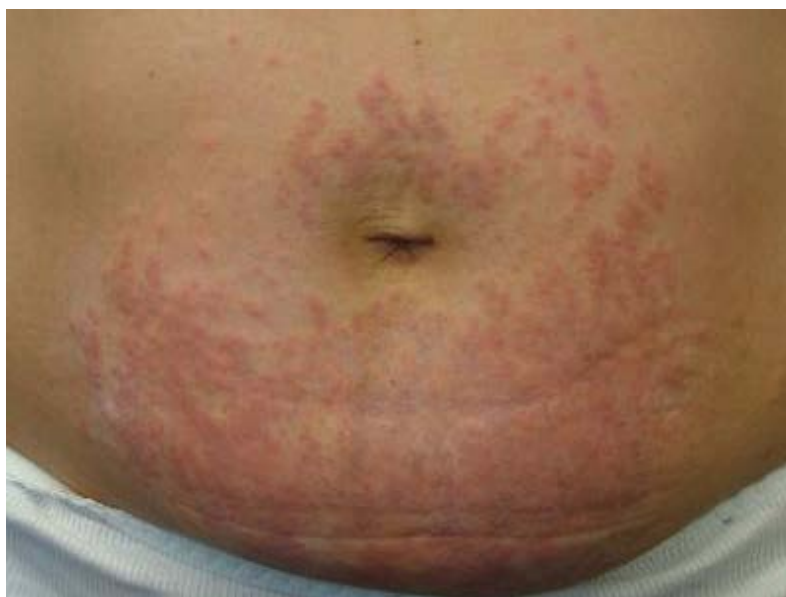


Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?



- A. Pre-eclampsia
- B. **Polymorphic eruption of pregnancy**
- C. Primary herpes simplex infection
- D. Pemphigoid gestationis
- E. Pompholyx

## Question stats

A	0.4%
B	79.4%
C	0.4%
D	19.1%
E	0.6%

79.4% of users answered this question correctly

Session score = 42.9%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Polymorphic eruption of pregnancy

[DermNet NZ](#)

Pemphigoid gestationis

## Skin disorders associated with pregnancy

### Polymorphic eruption of pregnancy

- pruritic condition associated with last trimester
- lesions often first appear in abdominal striae
- management depends on severity: emollients, mild potency topical steroids and oral steroids may be used

### Pemphigoid gestationis

- pruritic blistering lesions



- often develop in peri-umbilical region, later spreading to the trunk, back, buttocks and arms
- usually presents 2nd or 3rd trimester and is rarely seen in the first pregnancy
- oral corticosteroids are usually required

**Rate question:**

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## Question 22 of 131



A 29-year-old man presents due to the development of 'hard skin' on his scalp. On examination he has a 4cm circular, white, hyperkeratotic lesion on the crown of his head. He has no past history of any skin or scalp disorder. Skin scrapings are reported as follows:

No fungal elements seen

What is the most likely diagnosis?



A. Psoriasis

B. Dissecting cellulitis



C. Kerion

D. Systemic lupus erythematosus

E. Seborrhoeic dermatitis

As the skin scraping is negative for fungi the most likely diagnosis is psoriasis. Scalp psoriasis may occur in isolation in patients with no history of psoriasis elsewhere. Please see the link for more information.

The white appearance of the lesion is secondary to the 'silver scale' covering the psoriatic plaque.

### Psoriasis

Psoriasis is a common and chronic skin disorder. It generally presents with red, scaly patches on the skin although it is now recognised that patients with psoriasis are at increased risk of arthritis and cardiovascular disease.

#### Pathophysiology

- multifactorial and not yet fully understood
- genetic: associated HLA-B13, -B17, and -Cw6. Strong concordance (70%) in identical twins
- immunological: abnormal T cell activity stimulates keratinocyte proliferation. There is increasing evidence this may be mediated by a novel group of T helper cells producing IL-17, designated Th17. These cells seem to be a third T-effector cell subset in addition to Th1 and Th2
- environmental: it is recognised that psoriasis may be worsened (e.g. Skin trauma, stress), triggered (e.g. Streptococcal infection) or improved (e.g. Sunlight) by environmental factors

#### Recognised subtypes of psoriasis

- plaque psoriasis: the most common sub-type resulting in the typical well demarcated red, scaly patches affecting the extensor surfaces, sacrum and

#### Question stats

A	<div style="width: 43.3%;"></div>	43.3%
B	<div style="width: 0.5%;"></div>	0.5%
C	<div style="width: 35.7%;"></div>	35.7%
D	<div style="width: 1.4%;"></div>	1.4%
E	<div style="width: 19.1%;"></div>	19.1%

43.3% of users answered this question correctly

Session score = 40.9%

#### RCGP curriculum

15.10 - Skin Problems

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[Curriculum statement](#)

#### External links

[SIGN](#)

2010 Psoriasis guidelines

[DermNet NZ](#)

Scalp psoriasis



scalp

- flexural psoriasis: in contrast to plaque psoriasis the skin is smooth
- guttate psoriasis: transient psoriatic rash frequently triggered by a streptococcal infection. Multiple red, teardrop lesions appear on the body
- pustular psoriasis: commonly occurs on the palms and soles

#### Other features

- nail signs: pitting, onycholysis
- arthritis

#### Complications

- psoriatic arthropathy (around 10%)
- increased incidence of metabolic syndrome
- increased incidence of cardiovascular disease
- psychological distress

#### **Rate question:**



# Question 12 of 231



Which one of the following steroid creams is the most potent?

- A. Cutivate (Fluticasone propionate 0.05%)
- B. Eumovate (Clobetasone butyrate 0.05%)
- C. Betnovate RD (Betamethasone valerate 0.025%)
- D. Betnovate (Betamethasone valerate 0.1%)
- E. Dermovate (Clobetasol propionate 0.05%)



## Question stats

A	3.8%
B	10.7%
C	4.3%
D	10%
E	71.3%

71.3% of users answered this question correctly

Session score = 50%

## Eczema: topical steroids

Use weakest steroid cream which controls patients symptoms

The table below shows topical steroids by potency

Mild	Moderate	Potent	Very potent
Hydrocortisone 0.5-2.5%	Betamethasone valerate 0.025% (Betnovate RD)	Fluticasone propionate 0.05% (Cutivate)	Clobetasol propionate 0.05% (Dermovate)
	Clobetasone butyrate 0.05% (Eumovate)	Betamethasone valerate 0.1% (Betnovate)	

Finger tip rule

- 1 finger tip unit (FTU) = 0.5 g, sufficient to treat a skin area about twice that of the flat of an adult hand

Topical steroid doses for eczema in adults

Area of skin	Fingertip units per dose
Hand and fingers (front and back)	1.0
A foot (all over)	2.0
Front of chest and abdomen	7.0
Back and buttocks	7.0
Face and neck	2.5
An entire arm and hand	4.0
An entire leg and foot	8.0

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## External links

[British Association of Dermatologists](#)

Atopic eczema guidelines



Rate question:



### Question 23 of 131



A 45-year-old woman is presents with itchy, violaceous papules on the flexor aspects of her wrists. She is normally fit and well and has not had a similar rash previously. Given the likely diagnosis, what other feature is she most likely to have?

- A. Onycholysis
- B. Raised ESR
- ✓ C. Mucous membrane involvement
- D. Pain in small joints
- E. Microscopic haematuria

### Question stats

A	8.9%
B	17.7%
C	53.5%
D	13.8%
E	6.1%

53.5% of users answered this question correctly

Session score = 43.5%

### Lichen

- planus: purple, pruritic, papular, polygonal rash on flexor surfaces. Wickham's striae over surface. Oral involvement common
- sclerosus: itchy white spots typically seen on the vulva of elderly women

Mucous membrane involvement is common in lichen planus

### Lichen planus

Lichen planus is a skin disorder of unknown aetiology, most probably being immune mediated

### Features

- itchy, papular rash most common on the palms, soles, genitalia and flexor surfaces of arms
- rash often polygonal in shape, 'white-lace' pattern on the surface (Wickham's striae)
- Koebner phenomenon may be seen (new skin lesions appearing at the site of trauma)
- oral involvement in around 50% of patients
- nails: thinning of nail plate, longitudinal ridging

Lichenoid drug eruptions - causes:

- gold
- quinine
- thiazides

Management

### RCGP curriculum

15.10 - Skin Problems

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[Curriculum statement](#)

### External links

[DermNet NZ](#)

Picture of lichen planus

[DermNet NZ](#)

Picture of Wickham's striae



- topical steroids are the mainstay of treatment
- extensive lichen planus may require oral steroids or immunosuppression

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## Question 24 of 131



A 78-year-old nursing home resident is reviewed due to the development of an intensely itchy rash. On examination white linear lesions are seen on the wrists and elbows, and red papules are present on the penis. What is the most appropriate management?



A. Topical permethrin



B. Referral to GUM clinic

C. Topical betnovate

D. Topical ketoconazole

E. Topical selenium sulphide

Lichen planus may give a similar picture but the intense itching is more characteristic of scabies. It is also less common for lichen planus to present in the elderly - it typically affects patients aged 30-60 years.

### Scabies

Scabies is caused by the mite *Sarcoptes scabiei* and is spread by prolonged skin contact. It typically affects children and young adults.

The scabies mite burrows into the skin, laying its eggs in the stratum corneum. The intense pruritus associated with scabies is due to a delayed type IV hypersensitivity reaction to mites/eggs which occurs about 30 days after the initial infection.

#### Features

- widespread pruritus
- linear burrows on the side of fingers, interdigital webs and flexor aspects of the wrist
- in infants the face and scalp may also be affected
- secondary features are seen due to scratching: excoriation, infection

#### Management

- permethrin 5% is first-line
- malathion 0.5% is second-line
- give appropriate guidance on use (see below)
- pruritus persists for up to 4-6 weeks post eradication

#### Patient guidance on treatment (from Clinical Knowledge Summaries)

- avoid close physical contact with others until treatment is complete
- all household and close physical contacts should be treated at the same time, even if asymptomatic
- launder, iron or tumble dry clothing, bedding, towels, etc., on the first day

#### Question stats

A		56.4%
B		6.3%
C		24.3%
D		6.3%
E		6.7%

56.4% of users answered this question correctly

Session score = 41.7%

#### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

#### External links

[National Prescribing Centre](#)  
2008 Scabies guidelines

[Postgraduate Medical Journal](#)  
Review of scabies

[Postgraduate Medical Journal](#)  
Scabies management



of treatment to kill off mites.

The BNF advises to apply the insecticide to all areas, including the face and scalp, contrary to the manufacturer's recommendation. Patients should be given the following instructions:

- apply the insecticide cream or liquid to cool, dry skin
- pay close attention to areas between fingers and toes, under nails, armpit area, creases of the skin such as at the wrist and elbow
- allow to dry and leave on the skin for 8–12 hours for permethrin, or for 24 hours for malathion, before washing off
- reapply if insecticide is removed during the treatment period, e.g. If wash hands, change nappy, etc
- repeat treatment 7 days later

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## Question 25 of 131



A 47-year-old lorry driver presents following the development of a widespread urticarial rash. This is associated with pruritus. What is the most appropriate medication to help relieve the itch?



A. Cetirizine



B. Loratadine

C. Chlorphenamine

D. Ranitidine

E. Alimemazine

The obvious concern in a lorry driver is drowsiness. Of the non-sedating antihistamines there is some evidence that cetirizine causes more drowsiness than loratadine. Please see BMJ. 2000 April 29; 320(7243): 1184–1187

## Antihistamines

Antihistamines are of value in the treatment of allergic rhinitis and urticaria. Of the non-sedating antihistamines there is some evidence that cetirizine may cause more drowsiness than other drugs in the class

Rate question:

## Question stats

A		33.4%
B		51.5%
C		13.4%
D		1%
E		0.7%

51.5% of users answered this question correctly

Session score = 40%

## RCGP curriculum

15.10 - Skin Problems

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# Question 26 of 131



Which one of the following conditions causes non-scarring alopecia?

- A. Discoid lupus
- B. Radiotherapy
- C. Lichen planus
- D. Tinea capitis
- E. Alopecia areata



## Question stats

A	2.9%
B	4.3%
C	2.7%
D	14.6%
E	75.5%

75.5% of users answered this question correctly

Session score = 42.3%

## Alopecia

Alopecia may be divided into scarring (destruction of hair follicle) and non-scarring (preservation of hair follicle)

### Scarring alopecia

- trauma, burns
- radiotherapy
- lichen planus
- discoid lupus
- tinea capitis\*

### Non-scarring alopecia

- male-pattern baldness
- drugs: cytotoxic drugs, carbimazole, heparin, oral contraceptive pill, colchicine
- nutritional: iron and zinc deficiency
- autoimmune: alopecia areata
- telogen effluvium (hair loss following stressful period e.g. surgery)
- trichotillomania

\*scarring would develop in untreated tinea capitis if a kerion develops

Rate question:

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# Question 27 of 131



A 21-year-old woman who is 16 weeks pregnant present with worsening acne which she is finding distressing. She is currently using topical benzyl peroxide with limited effect. On examination there is widespread non-inflammatory lesions and pustules on her face. What is the most appropriate next management step?

- A. Oral trimethoprim
- B. Oral lymecycline
- C. Oral erythromycin
- D. Topical retinoid
- E. Oral doxycycline



## Question stats

A	4.4%
B	7.3%
C	66.8%
D	16.3%
E	5.3%

66.8% of users answered this question correctly

Session score = 44.4%

Oral erythromycin may be used for acne in pregnancy. The other drugs are contraindicated

## Acne vulgaris: management

Acne vulgaris is a common skin disorder which usually occurs in adolescence. It typically affects the face, neck and upper trunk and is characterised by the obstruction of the pilosebaceous follicles with keratin plugs which results in comedones, inflammation and pustules.

Acne may be classified into mild, moderate or severe:

- mild: open and closed comedones with or without sparse inflammatory lesions
- moderate acne: widespread non-inflammatory lesions and numerous papules and pustules
- severe acne: extensive inflammatory lesions, which may include nodules, pitting, and scarring

A simple step-up management scheme often used in the treatment of acne is as follows:

- single topical therapy (topical retinoids, benzyl peroxide)
- topical combination therapy (topical antibiotic, benzoyl peroxide, topical retinoid)
- oral antibiotics: e.g. Oxytetracycline, doxycycline. Improvement may not be seen for 3-4 months. Minocycline is now considered less appropriate due to the possibility of irreversible pigmentation. Gram negative folliculitis may occur as a complication of long-term antibiotic use - high-dose oral trimethoprim is effective if this occurs
- oral isotretinoin: only under specialist supervision

There is no role for dietary modification in patients with acne

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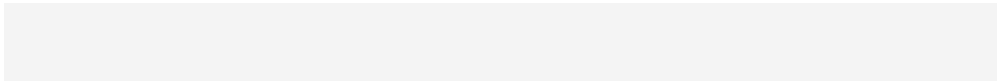
## External links

[Clinical Knowledge Summaries](#)

Acne vulgaris guidelines

Rate question:







**Question 28 of 131**


Which one of the following statements regarding strawberry naevi is incorrect?



- A. Cavernous haemangioma is a deep capillary haemangioma
- B. Chorionic villous sampling is a risk factor
- C. Around 65% resolve before 10 years of age
- D. Typically they increase in size for around 6-9 months before slowly regressing
- E. Are usually not present at birth

Around 95% resolve before 10 years of age

**Strawberry naevus**

Strawberry naevi (capillary haemangioma) are usually not present at birth but may develop rapidly in the first month of life. They appear as erythematous, raised and multilobed tumours.

Typically they increase in size until around 6-9 months before regressing over the next few years (around 95% resolve before 10 years of age).

Common sites include the face, scalp and back. Rarely they may be present in the upper respiratory tract leading to potential airway obstruction

Capillary haemangiomas are present in around 10% of white infants. Female infants, premature infants and those of mothers who have undergone chorionic villous sampling are more likely to be affected

Potential complications

- mechanical e.g. Obstructing visual fields or airway
- bleeding
- ulceration
- thrombocytopaenia

If treatment is required (e.g. Visual field obstruction) then systemic steroids are used

Cavernous haemangioma is a deep capillary haemangioma

**Rate question:**

**Question stats**

A		7.5%
B		22.1%
C		44.8%
D		8.1%
E		17.5%

44.8% of users answered this question correctly

Session score = 42.9%

**RCGP curriculum**

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**Question 29 of 131**


A 19-year-old man is started on isotretinoin for severe nodulo-cystic acne. Which one of the following side-effects is most likely to occur?

- A. Low mood
- B. Thrombocytopaenia
-  C. **Raised plasma triglycerides**
- D. Reversible alopecia
-  E. **Dry skin**

Dry skin is the most common side-effect of isotretinoin

**Question stats**

<b>A</b>		14.5%
<b>B</b>		10.8%
<b>C</b>		7.9%
<b>D</b>		3.9%
<b>E</b>		63%

63% of users answered this question correctly

Session score = 41.4%

**Isotretinoin**

Isotretinoin is an oral retinoid used in the treatment of severe acne. Two-thirds of patients have a long term remission or cure following a course of oral isotretinoin

**Adverse effects**

- teratogenicity: females should ideally be using two forms of contraception (e.g. Combined oral contraceptive pill and condoms)
- dry skin, eyes and lips: the most common side-effect of isotretinoin
- low mood
- raised triglycerides
- hair thinning
- nose bleeds (caused by dryness of the nasal mucosa)
- benign intracranial hypertension: isotretinoin treatment should not be combined with tetracyclines for this reason

**Rate question:**
**RCGP curriculum**

15.10 - Skin Problems

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### Question 30 of 131



A 58-year-old woman presents with a persistent erythematous rash on her cheeks and a 'red nose'. She describes occasional episodes of facial flushing. On examination erythematous skin is noted on the nose and cheeks associated with occasional papules. What is the most appropriate management?



- A. Topical metronidazole
- B. Oral oxytetracycline
- C. Benzyl peroxide
- D. Dakta cort
- E. Topical hydrocortisone

Given that this woman has mild symptoms, topical metronidazole should be used first line

### Acne rosacea

Acne rosacea is a chronic skin disease of unknown aetiology

#### Features

- typically affects nose, cheeks and forehead
- flushing is often first symptom
- telangiectasia are common
- later develops into persistent erythema with papules and pustules
- rhinophyma
- ocular involvement: blepharitis

#### Management

- topical metronidazole may be used for mild symptoms (i.e. Limited number of papules and pustules, no plaques)
- more severe disease is treated with systemic antibiotics e.g. Oxytetracycline
- recommend daily application of a high-factor sunscreen
- camouflage creams may help conceal redness
- laser therapy may be appropriate for patients with prominent telangiectasia

**Rate question:**

#### Question stats

A	<div style="width: 74.2%;"></div>	74.2%
B	<div style="width: 17.2%;"></div>	17.2%
C	<div style="width: 3.5%;"></div>	3.5%
D	<div style="width: 0.8%;"></div>	0.8%
E	<div style="width: 4.4%;"></div>	4.4%

74.2% of users answered this question correctly

Session score = 43.3%

#### RCGP curriculum

15.10 - Skin Problems

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Rosacea guidelines



### Question 31 of 131



A 22-year-old male presents to surgery due to a longstanding problem of bilateral excessive axillary sweating. He is otherwise well but the condition is affecting his confidence and limiting his social life. What is the most appropriate management?

- A. Non-sedating antihistamine
- B. Topical hydrocortisone 1%
-  C. Perform thyroid function tests
-  D. Topical aluminium chloride
- E. Refer to dermatology

#### Question stats

A	1.2%
B	0.4%
C	6.9%
D	80.5%
E	11.1%

80.5% of users answered this question correctly

Session score = 41.9%

### Hyperhidrosis

Hyperhidrosis describes the excessive production of sweat

Management options include

- topical aluminium chloride preparations are first-line. Main side effect is skin irritation
- iontophoresis: particularly useful for patients with palmar, plantar and axillary hyperhidrosis
- botulinum toxin: currently licensed for axillary symptoms
- surgery: e.g. Endoscopic transthoracic sympathectomy. Patients should be made aware of the risk of compensatory sweating

**Rate question:**

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[Clinical Knowledge Summaries](#)  
Hyperhidrosis guidelines



### Question 32 of 131



A 47-year-old man who is known to have dermatomyositis secondary to small cell lung cancer is noted to have roughened red papules over the extensor surfaces of the fingers. What are these lesions called?

- A. Heberden's node
- B. Aschoff nodules
- C. **Gottron's papules**
- D. Bouchard's nodes
- E. Muehrcke's lines



#### Question stats

A	4%
B	21.5%
C	67.4%
D	5.4%
E	1.7%

67.4% of users answered this question correctly

Session score = 43.8%

Gottron's papules are roughened red papules over the extensor surfaces and are seen in dermatomyositis

Heberden's and Bouchard's nodes are seen in osteoarthritis. Aschoff nodules are pathognomonic of rheumatic fever whilst Muehrcke's lines are white, transverse lines of the fingernail seen in hypoalbuminaemia

### Dermatomyositis

#### Overview

- inflammatory disorder causing symmetrical, proximal muscle weakness and characteristic skin lesions
- may be idiopathic or associated with connective tissue disorders or underlying malignancy (found in 20-25% - more if patient older)
- polymyositis is a variant of the disease where skin manifestations are not prominent

#### Skin features

- photosensitive
- macular rash over back and shoulder
- heliotrope rash in the periorbital region
- Gottron's papules - roughened red papules over extensor surfaces of fingers
- nail fold capillary dilatation

#### Other features

- proximal muscle weakness +/- tenderness
- Raynaud's
- respiratory muscle weakness
- interstitial lung disease: e.g. Fibrosing alveolitis or organising pneumonia
- dysphagia, dysphonia

#### RCGP curriculum

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#### External links

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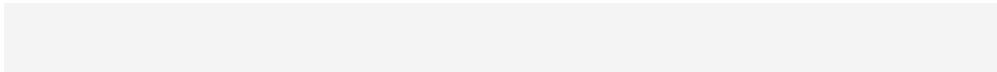
Picture of heliotrope rash

[DermNet NZ](#)

Picture of Gottron's papules

**Rate question:**





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## Question 13 of 231



A 34-year-old man with a long history of back pain asks you to have a look at his back. His wife has noticed a rash.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?



A. Pityriasis rosea

B. Erythema multiforme



C. Erythema ab igne

D. Pityriasis versicolor

E. Cold urticaria

This is a typical erythema ab igne rash. He may have been applying a hot water bottle to his lower back to try and relieve the pain.

**Erythema ab igne**

## Question stats

A	3%
B	5.8%
C	78%
D	8.8%
E	4.4%

78% of users answered this question correctly

Session score = 46.2%

## RCGP curriculum

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Erythema ab igne



Erythema ab igne is a skin disorder caused by over exposure to infrared radiation. Characteristic features include erythematous patches with hyperpigmentation and telangiectasia. A typical history would be an elderly women who always sits next to an open fire

If the cause is not treated then patients may go on to develop squamous cell skin cancer

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### Question 33 of 131



A 64-year-old female is referred to dermatology due to a non-healing skin ulcer on her lower leg. This has been present for around 6 weeks and the appearance didn't improve following a course of oral flucloxacillin. What is the most important investigation to perform first?

- A. MRI
- B. Rheumatoid factor titres
- ✓ C. Ankle-brachial pressure index
- D. Swab of ulcer for culture and sensitivity
- E. X-ray

An ankle-brachial pressure index measurement would help exclude arterial insufficiency as a contributing factor. If this was abnormal then a referral to the vascular surgeons should be considered.

If the ulcer fails to heal with active management (e.g. Compression bandaging) then referral for consideration of biopsy to exclude a malignancy should be made.

Ongoing infection is not a common cause of non-healing leg ulcers.

### Venous ulceration

Venous ulceration is typically seen above the medial malleolus

#### Investigations

- ankle-brachial pressure index (ABPI) is important in non-healing ulcers to assess for poor arterial flow which could impair healing
- a 'normal' ABPI may be regarded as between 0.9 - 1.2. Values below 0.9 indicate arterial disease. Interestingly, values above 1.3 may also indicate arterial disease, in the form of false-negative results secondary to arterial calcification (e.g. In diabetics)

#### Management

- compression bandaging, usually four layer (only treatment shown to be of real benefit)
- oral pentoxifylline, a peripheral vasodilator, improves healing rate
- small evidence base supporting use of flavinoids
- little evidence to suggest benefit from hydrocolloid dressings, topical growth factors, ultrasound therapy and intermittent pneumatic compression

Rate question:

#### Question stats

A	0.6%
B	0.4%
C	86.8%
D	9.4%
E	2.9%

86.8% of users answered this question correctly

Session score = 45.5%

#### RCGP curriculum

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#### External links

[BMJ](#)

Management of venous leg ulcers







# Question 34 of 131



Please look at the image below:



Image used on license from [DermNet NZ](#)



Which one of the following is least likely to have a role in the management of this patient?

- A. Sun block
- B. Topical tacrolimus
- C. Phototherapy
- ☒ D. Topical ketoconazole
- E. Topical corticosteroids

There is no role for antifungal therapy in vitiligo.

## Vitiligo

Vitiligo is an autoimmune condition which results in the loss of melanocytes and consequent depigmentation of the skin. It is thought to affect around 1% of the population and symptoms typically develop by the age of 20-30 years.

### Features

- well demarcated patches of depigmented skin
- the peripheries tend to be most affected
- trauma may precipitate new lesions (Koebner phenomenon)

### Question stats

A	5.1%
B	6.1%
C	18.6%
D	62%
E	8.3%

62% of users answered this question correctly

Session score = 47.1%

### RCGP curriculum

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### External links

[DermNet NZ](#)

Vitiligo



### Associated conditions

- type 1 diabetes mellitus
- Addison's disease
- autoimmune thyroid disorders
- pernicious anaemia
- alopecia areata

### Management

- sun block for affected areas of skin
- camouflage make-up
- topical corticosteroids may reverse the changes if applied early
- there may also be a role for topical tacrolimus and phototherapy, although caution needs to be exercised with light-skinned patients

### Rate question:



## Question 35 of 131



A 19-year-old man presents with the following lesions on his leg. They are mildly pruritic.



Two weeks later he develops numerous other lesions on his body. What is the most likely diagnosis?

- A. Guttate psoriasis
- B. Pityriasis versicolor
- C. Chronic plaque psoriasis
- D. Dermatitis herpetiformis
- ✓ E. Pityriasis rosea

## Question stats

A	16.4%
B	12.8%
C	9.8%
D	8.9%
E	52.1%

52.1% of users answered this question correctly

Session score = 48.6%

## RCGP curriculum

15.10 - Skin Problems

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## External links

[DermNet NZ](#)

Picture of pityriasis rosea

## Pityriasis rosea

## Overview

- cause unknown, herpes hominis virus 7 (HHV-7) a possibility
- tends to affect young adults



## Features

- herald patch (usually on trunk)
- followed by erythematous, oval, scaly patches which follow a characteristic distribution with the longitudinal diameters of the oval lesions running parallel to the line of Langer. This may produce a 'fir-tree' appearance

## Management

- self-limiting, usually disappears after 4-6 weeks

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### Question 36 of 131



A 15-year-old girl presents with an urticarial rash, angioedema and wheezing. Her mother states that she has just come from her younger sister's party where she had been helping to blow up balloons. What is the most likely diagnosis?

- A. C1-esterase deficiency (hereditary angioedema)
- B. Allergic contact dermatitis
- C. Peanut allergy
- D. Latex allergy
- E. Irritant contact dermatitis



This is a typical history of latex allergy. Adrenaline should be given immediately and usual anaphylaxis management followed

### Hypersensitivity

The Gell and Coombs classification divides hypersensitivity reactions into 4 types

Type I - Anaphylactic

- antigen reacts with IgE bound to mast cells
- anaphylaxis, atopy

Type II - Cell bound

- IgG or IgM binds to antigen on cell surface
- autoimmune haemolytic anaemia, ITP, Goodpasture's

Type III - Immune complex

- free antigen and antibody (IgG, IgA) combine
- serum sickness, systemic lupus erythematosus, post-streptococcal glomerulonephritis, extrinsic allergic alveolitis (especially acute phase)

Type IV - Delayed hypersensitivity

- T cell mediated
- tuberculosis, tuberculin skin reaction, graft versus host disease, allergic contact dermatitis, scabies, extrinsic allergic alveolitis (especially chronic phase)

In recent times a further category has been added:

Type V - Stimulated hypersensitivity

- IgG antibodies stimulate cells they are directed against

### Question stats

A	3.5%
B	3.7%
C	3.5%
D	88.5%
E	0.8%

88.5% of users answered this question correctly

Session score = 50%

### RCGP curriculum

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Graves', myasthenia gravis

Rate question:



# Question 37 of 131



This woman complains of a 'rash' on her cheeks:



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Vitiligo
- B. Seborrhoeic dermatitis
- C. Acne rosacea
- ☒ D. Melasma
- ☐ E. Systemic lupus erythematosus

## Question stats

A	19.2%
B	0.9%
C	5.2%
D	67.1%
E	7.6%

67.1% of users answered this question correctly

Session score = 48.6%

## RCGP curriculum

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## Melasma

Melasma is a condition associated with the development of hyperpigmented macules in sun-exposed areas, particularly the face. The term chloasma is sometimes used interchangeably but more specifically describes the appearance of melasma during pregnancy.

## Epidemiology

- more common in women
- more common in people with darker skin

## Causes



- pregnancy
- combined oral contraceptive pill

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# Question 38 of 131



The lesion below started as a small red papule which grew in size before starting to ulcerate:



Image used on license from [DermNet NZ](#)

Which one of the following conditions is most associated with this skin condition?

- ☒ A. Rheumatoid arthritis
- ☐ B. Sarcoidosis
- ☐ C. Primary herpes simplex virus infection
- ☐ D. Tuberculosis
- ☐ E. Thyrotoxicosis

## Pyoderma gangrenosum

### Features

- typically on the lower limbs
- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- may be accompanied systemic symptoms e.g. Fever, myalgia

### Causes\*

- idiopathic in 50%
- inflammatory bowel disease: ulcerative colitis, Crohn's

### Question stats

A	<div style="width: 47%;"></div>	47%
B	<div style="width: 34.9%;"></div>	34.9%
C	<div style="width: 4.6%;"></div>	4.6%
D	<div style="width: 8.9%;"></div>	8.9%
E	<div style="width: 4.7%;"></div>	4.7%

47% of users answered this question correctly

Session score = 47.4%

### RCGP curriculum

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Picture of pyoderma gangrenosum

[DermNet NZ](#)

Stoma skin problems



- rheumatoid arthritis, SLE
- myeloproliferative disorders
- lymphoma, myeloid leukaemias
- monoclonal gammopathy (IgA)
- primary biliary cirrhosis

#### Management

- the potential for rapid progression is high in most patients and most doctors advocate oral steroids as first-line treatment
- other immunosuppressive therapy, for example ciclosporin and infliximab, have a role in difficult cases

\*note whilst pyoderma gangrenosum can occur in diabetes mellitus it is rare and is generally not included in a differential of potential causes

#### Rate question:

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## Question 39 of 131



A 29-year-old man consults you regarding a rash he has noticed around his groin. It has been present for the past 3 months and is asymptomatic. On examination there is a symmetrical well-demarcated, brown-red macular rash around the groin. What is the most likely diagnosis?



- A. Erythrasma
- B. Pityriasis versicolor
- C. Secondary syphilis
- D. Acanthosis nigricans



- E. Candidal intertrigo

## Question stats

A	<div style="width: 38%;"></div>	38%
B	<div style="width: 14.9%;"></div>	14.9%
C	<div style="width: 2.6%;"></div>	2.6%
D	<div style="width: 23.7%;"></div>	23.7%
E	<div style="width: 20.8%;"></div>	20.8%

38% of users answered this question correctly

Session score = 46.2%

## Erythrasma

Erythrasma is a generally asymptomatic, flat, slightly scaly, pink or brown rash usually found in the groin or axillae. It is caused by an overgrowth of the diphtheroid *Corynebacterium minutissimum*

Examination with Wood's light reveals a coral-red fluorescence.

Topical miconazole or antibacterial are usually effective. Oral erythromycin may be used for more extensive infection

## Rate question:

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[DermNet NZ](#)

Erythrasma



# Question 40 of 131



Which one of the following statements regarding fungal nail infections is incorrect?



- A. *Candida* accounts for less than 10% of cases
- B. Diagnosis should be confirmed by microbiology before starting treatment
- C. Treatment is successful in around 90-95% of people
- D. Thickened, rough, opaque nails are typical
- E. Suitable investigations include nail clippings

## Question stats

A	10.4%
B	14.7%
C	70.9%
D	2%
E	1.9%

70.9% of users answered this question correctly

Session score = 45%

## Fungal nail infections

Onychomycosis is fungal infection of the nails. This may be caused by

- dermatophytes - mainly *Trichophyton rubrum*, accounts for 90% of cases
- yeasts - such as *Candida*
- non-dermatophyte moulds

### Features

- 'unsightly' nails are a common reason for presentation
- thickened, rough, opaque nails are the most common finding

### Investigation

- nail clippings
- scrapings of the affected nail

### Management

- treatment is successful in around 50-80% of people
- diagnosis should be confirmed by microbiology before starting treatment
- dermatophyte infection: oral terbinafine is currently recommended first-line with oral itraconazole as an alternative. Six weeks - 3 months therapy is needed for fingernail infections whilst toenails should be treated for 3 - 6 months
- *Candida* infection: mild disease should be treated with topical antifungals (e.g. Amorolfine) whilst more severe infections should be treated with oral itraconazole for a period of 12 weeks

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Fungal nail infections

Rate question:







## Questions 41 to 43 of 131



**Theme:** Acne vulgaris: management

- A** Oral trimethoprim
- B** Oral flucloxacillin
- C** Topical benzoyl peroxide
- D** Topical zinc + erythromycin
- E** Oral isotretinoin
- F** Oral lymecycline
- G** Oral minocycline
- H** Oral erythromycin

For each one of the following questions please select the correct answer from the options listed above:

- 41.** Should be avoided due to an increased risk of drug-induced lupus and hyperpigmentation



Oral trimethoprim

The correct answer is Oral minocycline

- 42.** Is most likely to affect the hepatic metabolism of other medications



Oral erythromycin

Erythromycin is an inhibitor of the P450 system.

- 43.** Patients should be warned about photosensitivity



Topical benzoyl peroxide

The correct answer is Oral lymecycline

Care should be taken with topical retinoids as well. Photosensitivity with oral isotretinoin is listed as a 'very rare' side-effect in the BNF, the last of a very long list of side-effects.

## Question stats

Average score for registered users:

<b>41</b>		70.1%
<b>42</b>		41.7%
<b>43</b>		48.3%

Session score = 44.2%

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Acne vulgaris guidelines



Acne vulgaris is a common skin disorder which usually occurs in adolescence. It typically affects the face, neck and upper trunk and is characterised by the obstruction of the pilosebaceous follicles with keratin plugs which results in comedones, inflammation and pustules.

Acne may be classified into mild, moderate or severe:

- mild: open and closed comedones with or without sparse inflammatory lesions
- moderate acne: widespread non-inflammatory lesions and numerous papules and pustules
- severe acne: extensive inflammatory lesions, which may include nodules, pitting, and scarring

A simple step-up management scheme often used in the treatment of acne is as follows:

- single topical therapy (topical retinoids, benzyl peroxide)
- topical combination therapy (topical antibiotic, benzoyl peroxide, topical retinoid)
- oral antibiotics: e.g. Oxytetracycline, doxycycline. Improvement may not be seen for 3-4 months. Minocycline is now considered less appropriate due to the possibility of irreversible pigmentation. Gram negative folliculitis may occur as a complication of long-term antibiotic use - high-dose oral trimethoprim is effective if this occurs
- oral isotretinoin: only under specialist supervision

There is no role for dietary modification in patients with acne

**Rate question:**



# Question 44 of 131



Which of the following skin conditions is not associated with diabetes mellitus?



- A. Necrobiosis lipoidica
- B. Sweet's syndrome
- C. Granuloma annulare
- D. Vitiligo
- E. Lipoatrophy

Sweet's syndrome is also known as acute febrile neutrophilic dermatosis has a strong association with acute myeloid leukaemia. It is not associated with diabetes mellitus

## Skin disorders associated with diabetes

Note whilst pyoderma gangrenosum can occur in diabetes mellitus it is rare and is often not included in a differential of potential causes

Necrobiosis lipoidica

- shiny, painless areas of yellow/red/brown skin typically on the shin
- often associated with surrounding telangiectasia

Infection

- candidiasis
- staphylococcal

Neuropathic ulcers

Vitiligo

Lipoatrophy

Granuloma annulare\*

- papular lesions that are often slightly hyperpigmented and depressed centrally

\*it is not clear from recent studies if there is actually a significant association between diabetes mellitus and granuloma annulare, but it is often listed in major textbooks

## Question stats

A	2.1%
B	72.2%
C	12.3%
D	8.6%
E	4.8%

72.2% of users answered this question correctly

Session score = 43.2%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Picture of necrobiosis lipoidica

[DermNet NZ](#)

Picture of granuloma annulare

Rate question:







# Question 14 of 231



A woman who is 31 weeks pregnant presents with a rash on her abdomen and thighs:



Image used on license from [DermNet NZ](#)

The rash is very itchy and she is having difficulty sleeping at night. What is the most likely diagnosis?

- A. Primary herpes simplex infection
- B. Pityriasis rosea
- ☒ C. Polymorphic eruption of pregnancy
- ☐ D. Pemphigoid gestationis
- E. Pompholyx

## Question stats

A	0.9%
B	4.6%
C	79.4%
D	13.3%
E	1.8%

79.4% of users answered this question correctly

Session score = 42.9%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Polymorphic eruption of pregnancy

[DermNet NZ](#)

Pemphigoid gestationis



### Polymorphic eruption of pregnancy

- pruritic condition associated with last trimester
- lesions often first appear in abdominal striae
- management depends on severity: emollients, mild potency topical steroids and oral steroids may be used

### Pemphigoid gestationis

- pruritic blistering lesions
- often develop in peri-umbilical region, later spreading to the trunk, back, buttocks and arms
- usually presents 2nd or 3rd trimester and is rarely seen in the first pregnancy
- oral corticosteroids are usually required

#### **Rate question:**

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# Question 45 of 131



Which one of the following antibiotics is most associated with the development of Stevens-Johnson syndrome?



A. Co-trimoxazole

B. Ethambutol

C. Chloramphenicol



D. Ciprofloxacin

E. Gentamicin

## Question stats

A	<div></div>	59.3%
B	<div></div>	5.7%
C	<div></div>	11.5%
D	<div></div>	18.6%
E	<div></div>	5%

59.3% of users answered this question correctly

Session score = 42.2%

## Stevens-Johnson syndrome

Stevens-Johnson syndrome severe form of erythema multiforme associated with mucosal involvement and systemic symptoms

### Features

- rash is typically maculopapular with target lesions being characteristic. May develop into vesicles or bullae
- mucosal involvement
- systemic symptoms: fever, arthralgia

### Causes

- idiopathic
- bacteria: Mycoplasma, Streptococcus
- viruses: herpes simplex virus, Orf
- drugs: penicillin, sulphonamides, carbamazepine, allopurinol, NSAIDs, oral contraceptive pill
- connective tissue disease e.g. SLE
- sarcoidosis
- malignancy

## RCGP curriculum

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Rate question:



**Question 46 of 131**


A 55-year-old man develops a rash two days after starting a new medication. The rash is mildly pruritic and mainly affects the arms, torso and neck. The palms of his hand are shown below:



Image used on license from [DermNet NZ](#)



Which one of the following drugs is most likely to have been started?

- A. Levetiracetam
- B. Olanzapine
- ☒ C. Carbamazepine
- D. Fluoxetine
- E. Diazepam

This patient has developed erythema multiforme which is a known complication of carbamazepine use.

**Erythema multiforme**
**Features**

- target lesions
- initially seen on the back of the hands / feet before spreading to the torso
- upper limbs are more commonly affected than the lower limbs
- pruritus is occasionally seen and is usually mild

If symptoms are severe and involve blistering and mucosal involvement the term

**Question stats**

A	9.8%
B	12.8%
C	67.7%
D	8.7%
E	1%

67.7% of users answered this question correctly

Session score = 43.5%

**RCGP curriculum**

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[DermNet NZ](#)

Erythema multiforme



Stevens-Johnson syndrome is used.

#### Causes

- viruses: herpes simplex virus (the most common cause), Orf\*
- idiopathic
- bacteria: *Mycoplasma*, *Streptococcus*
- drugs: penicillin, sulphonamides, carbamazepine, allopurinol, NSAIDs, oral contraceptive pill, nevirapine
- connective tissue disease e.g. Systemic lupus erythematosus
- sarcoidosis
- malignancy

\*Orf is a skin disease of sheep and goats caused by a parapox virus

**Rate question:**



# Question 47 of 131



A 53-year-old diabetic woman presents with a four month history of bilateral erythematous lesions on her shins surrounded by telangiectasia. What is the most likely diagnosis?



A. Erythema nodosum

B. Neuropathic ulcer

C. Candidiasis



D. Necrobiosis lipoidica

E. Granuloma annulare

Erythema nodosum is not associated with surrounding telangiectasia

## Skin disorders associated with diabetes

Note whilst pyoderma gangrenosum can occur in diabetes mellitus it is rare and is often not included in a differential of potential causes

Necrobiosis lipoidica

- shiny, painless areas of yellow/red/brown skin typically on the shin
- often associated with surrounding telangiectasia

Infection

- candidiasis
- staphylococcal

Neuropathic ulcers

Vitiligo

Lipoatrophy

Granuloma annulare\*

- papular lesions that are often slightly hyperpigmented and depressed centrally

\*it is not clear from recent studies if there is actually a significant association between diabetes mellitus and granuloma annulare, but it is often listed in major textbooks

Rate question:

## Question stats

A		17.8%
B		0.6%
C		0.2%
D		71.3%
E		10.1%

71.3% of users answered this question correctly

Session score = 42.6%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Picture of necrobiosis lipoidica

[DermNet NZ](#)

Picture of granuloma annulare







# Question 48 of 131



This patient complains of a painful 'spot' on his ear:



Image used on license from [DermNet NZ](#)

Which one of the following statements regarding this condition is correct?

- A. It is twice as common in women as in men
- B. The peak incidence is in patients aged 40-50 years
- C. It is more common in patients with diabetes mellitus
- ☒ D. Biopsy is mandatory
- ☐ E. Cryotherapy is a treatment option

## Question stats

A	2.9%
B	10.7%
C	12.2%
D	26.1%
E	48.1%

48.1% of users answered this question correctly

Session score = 41.7%

## RCGP curriculum

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## Chondrodermatitis nodularis helicis

Chondrodermatitis nodularis helicis (CNH) is a common and benign condition characterised by the development of a painful nodule on the ear. It is thought to be caused by factors such as persistent pressure on the ear (e.g. secondary to sleep, headsets), trauma or cold. CNH is more common in men and with increasing age.

### Management

- reducing pressure on the ear: foam 'ear protectors' may be used during sleep
- other treatment options include cryotherapy, steroid injection, collagen



- injection
- surgical treatment may be used but there is a high recurrence rate

**Rate question:**



### Question 49 of 131



A 62-year-old female is referred to dermatology by her GP due to a lesion over her shin. It initially started as a small red papule which later became a deep, red, necrotic ulcers with a violaceous border. What is the likely diagnosis?

- A. Necrobiosis lipoidica diabetorum
- B. Syphilis
- C. Erythema nodosum
- D. Pretibial myxoedema
- E. **Pyoderma gangrenosum**



#### Question stats

<b>A</b>		6.3%
<b>B</b>		0.2%
<b>C</b>		2.5%
<b>D</b>		1.2%
<b>E</b>		89.8%

89.8% of users answered this question correctly

Session score = 42.9%

### Shin lesions

The differential diagnosis of shin lesions includes the following conditions:

- erythema nodosum
- pretibial myxoedema
- pyoderma gangrenosum
- necrobiosis lipoidica diabetorum

Below are the characteristic features:

#### Erythema nodosum

- symmetrical, erythematous, tender, nodules which heal without scarring
- most common causes are streptococcal infections, sarcoidosis, inflammatory bowel disease and drugs (penicillins, sulphonamides, oral contraceptive pill)

#### Pretibial myxoedema

- symmetrical, erythematous lesions seen in Graves' disease
- shiny, orange peel skin

#### Pyoderma gangrenosum

- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- idiopathic in 50%, may also be seen in inflammatory bowel disease, connective tissue disorders and myeloproliferative disorders

#### Necrobiosis lipoidica diabetorum

- shiny, painless areas of yellow/red skin typically on the shin of diabetics

#### RCGP curriculum

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#### External links

[DermNet NZ](#)

Picture of erythema nodosum

[DermIS.net](#)

Picture of pretibial myxoedema

[DermNet NZ](#)

Picture of pyoderma gangrenosum

[DermNet NZ](#)

Picture of necrobiosis lipoidica



often associated with telangiectasia

**Rate question:**



# Question 50 of 131



A 65-year-old woman with blistering lesions on her leg is suspected of having bullous pemphigoid. What is the most appropriate management?



- A. Trial of topical corticosteroids and review in 2 weeks
- B. Refer to secondary care
- C. Blood tests + chest x-ray + breast exam and refer to district nurse for dressings
- D. Reassurance and refer to district nurse for dressings
- E. Topical Permethrin 5%

## Question stats

A	<div style="width: 23.5%;"></div>	23.5%
B	<div style="width: 66.7%;"></div>	66.7%
C	<div style="width: 3.8%;"></div>	3.8%
D	<div style="width: 5.4%;"></div>	5.4%
E	<div style="width: 0.7%;"></div>	0.7%

66.7% of users answered this question correctly

Session score = 42%

## Bullous pemphigoid

Bullous pemphigoid is an autoimmune condition causing sub-epidermal blistering of the skin. This is secondary to the development of antibodies against hemidesmosomal proteins BP180 and BP230

Bullous pemphigoid is more common in elderly patients. Features include

- itchy, tense blisters typically around flexures
- the blisters usually heal without scarring
- mouth is usually spared\*

Skin biopsy

- immunofluorescence shows IgG and C3 at the dermoepidermal junction

Management

- referral to dermatologist for biopsy and confirmation of diagnosis
- oral corticosteroids are the mainstay of treatment
- topical corticosteroids, immunosuppressants and antibiotics are also used

\*in reality around 10-50% of patients have a degree of mucosal involvement. It would however be unusual for an exam question to mention mucosal involvement as it is seen as a classic differentiating feature between pemphigoid and pemphigus.

Rate question:

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## External links

[DermNet NZ](#)

Bullous pemphigoid

[British Association of Dermatologists](#)


Bullous pemphigoid guidelines



# Question 1 of 81



A 33-year-old woman presents to her GP with patchy, well demarcated hair loss on the scalp. This is affecting around 20% of her total scalp, and causing significant psychological distress. A diagnosis of alopecia areata is suspected. Which one of the following is an appropriate management plan?

- A. Topical 5-FU cream + referral to dermatologist
- B. Autoimmune screen + topical corticosteroid
- C. Topical ketoconazole + referral to dermatologist
-  D. **Topical corticosteroid + referral to dermatologist**
- E. Autoimmune screen + topical ketoconazole

Watchful waiting for spontaneous remission is another option. Neither the British Association of Dermatologists or Clinical Knowledge Summaries recommend screening for autoimmune disease

## Alopecia areata

Alopecia areata is a presumed autoimmune condition causing localised, well demarcated patches of hair loss. At the edge of the hair loss, there may be small, broken 'exclamation mark' hairs

Hair will regrow in 50% of patients by 1 year, and in 80-90% eventually. Careful explanation is therefore sufficient in many patients. Other treatment options include:

- topical or intralesional corticosteroids
- topical minoxidil
- phototherapy
- dithranol
- contact immunotherapy
- wigs

**Rate question:**

## Question stats

<b>A</b>		8.1%
<b>B</b>		21.6%
<b>C</b>		12.7%
<b>D</b>		50.8%
<b>E</b>		6.8%

50.8% of users answered this question correctly

Session score = 100%

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## External links

[British Association of Dermatologists](#)

Alopecia areata guidelines



[Clinical Knowledge Summaries](#)  
Alopecia areata guidelines



## Question 2 of 81



A 45-year-old man with a history of seborrhoeic dermatitis presents in late winter due a flare in his symptoms, affecting both his face and scalp. Which one of the following agents is least likely to be beneficial?

- A. Topical ketoconazole
- B. Selenium sulphide shampoo
-  C. Topical hydrocortisone
- D. Tar shampoo
-  E. Aqueous cream

There is less of a role for emollients in the management of seborrhoeic dermatitis than in other chronic skin disorders

### Seborrhoeic dermatitis in adults

Seborrhoeic dermatitis in adults is a chronic dermatitis thought to be caused by an inflammatory reaction related to a proliferation of a normal skin inhabitant, a fungus called *Malassezia furfur* (formerly known as *Pityrosporum ovale*). It is common, affecting around 2% of the general population

#### Features

- eczematous lesions on the sebum-rich areas: scalp (may cause dandruff), periorbital, auricular and nasolabial folds
- otitis externa and blepharitis may develop

#### Associated conditions include

- HIV
- Parkinson's disease






#### Scalp disease management

- over the counter preparations containing zinc pyrithione ('Head & Shoulders') and tar ('Neutrogena T/Gel') are first-line
- the preferred second-line agent is ketoconazole
- selenium sulphide and topical corticosteroid may also be useful

#### Face and body management

- topical antifungals: e.g. Ketoconazole
- topical steroids: best used for short periods
- difficult to treat - recurrences are common

### Question stats

A		9.8%
B		5.5%
C		15.9%
D		21.2%
E		47.5%

47.5% of users answered this question correctly

Session score = 50%

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### External links

[DermNet NZ](#)

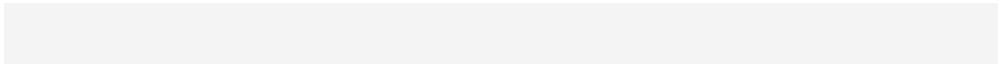
Overview and pictures of seborrhoeic dermatitis

[Clinical Knowledge Summaries](#)

Seborrhoeic dermatitis guidelines

Rate question:





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**Question 3 of 81**

A 27-year-old female presents with spots around her left eye:


**Question stats**

A	3.6%
B	79.9%
C	2.4%
D	8.5%
E	5.5%

79.9% of users answered this question correctly

Session score = 66.7%

**RCGP curriculum**

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What is the most likely diagnosis?



- A. Meibomian cysts
- B. **Milia**
- C. Hordeolum externum
- D. Molluscum contagiosum
- E. Acne conglobata

**Milia**

Milia are small, benign, keratin-filled cysts that typically appear around the face. They may appear at any age but are more common in newborns.

**Rate question:**







### Question 4 of 81



A 17-year-old female originally from Nigeria presents due to a swelling around her earlobe. She had her ears pierced around three months ago and has noticed the gradual development of an erythematous swelling since. On examination a keloid scar is seen. What is the most appropriate management?



- A. Refer for intralesional diclofenac
- B. Advise no treatment is available
- C. Refer for intralesional triamcinolone
- D. Advise will spontaneously regress within 4-6 months
- E. Refer for intralesional sclerotherapy

#### Question stats

A	<div></div>	8%
B	<div></div>	6.7%
C	<div></div>	67%
D	<div></div>	6.5%
E	<div></div>	11.7%

67% of users answered this question correctly

Session score = 75%

### Keloid scars

Keloid scars are tumour-like lesions that arise from the connective tissue of a scar and extend beyond the dimensions of the original wound

Predisposing factors

- ethnicity: more common in people with dark skin
- occur more commonly in young adults, rare in the elderly
- common sites (in order of decreasing frequency): sternum, shoulder, neck, face, extensor surface of limbs, trunk

Keloid scars are less likely if incisions are made along relaxed skin tension lines\*

Treatment

- early keloids may be treated with intra-lesional steroids e.g. triamcinolone
- excision is sometimes required

\*Langer lines were historically used to determine the optimal incision line. They were based on procedures done on cadavers but have been shown to produce worse cosmetic results than when following skin tension lines

Rate question:

#### RCGP curriculum

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# Question 15 of 231



A 24-year-old man with a history of ulcerative colitis presents due to an expanding 'blood blister' on his lower leg:



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Pyogenic granuloma
- B. Arterial leg ulcer
- C. Necrotising fasciitis
- D. Venous leg ulcer
- ✓ E. **Pyoderma gangrenosum**

## Question stats

A	12.2%
B	0.6%
C	2.7%
D	1.4%
E	83%

83% of users answered this question correctly

Session score = 46.7%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Picture of pyoderma gangrenosum

[DermNet NZ](#)

Stoma skin problems

## Pyoderma gangrenosum

### Features

- typically on the lower limbs
- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- may be accompanied systemic symptoms e.g. Fever, myalgia

### Causes\*

- idiopathic in 50%



- inflammatory bowel disease: ulcerative colitis, Crohn's
- rheumatoid arthritis, SLE
- myeloproliferative disorders
- lymphoma, myeloid leukaemias
- monoclonal gammopathy (IgA)
- primary biliary cirrhosis

#### Management

- the potential for rapid progression is high in most patients and most doctors advocate oral steroids as first-line treatment
- other immunosuppressive therapy, for example ciclosporin and infliximab, have a role in difficult cases

\*note whilst pyoderma gangrenosum can occur in diabetes mellitus it is rare and is generally not included in a differential of potential causes

#### Rate question:


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### Question 5 of 81



A 31-year-old female with polycystic ovarian syndrome consults you as she is troubled with excessive facial hair. Switching her combined oral contraceptive pill to co-cyprindiol has had no effect. On examination she has hirsutism affecting her moustache, beard, and temple areas. What is the most appropriate treatment?

- A. Topical salicylic acid
- B. Topical adapalene
- C. Oral clomifene
-  D. Topical eflornithine
- E. Topical tazarotene

#### Question stats

A	2.9%
B	10.1%
C	16.3%
D	66.7%
E	4%

66.7% of users answered this question correctly

Session score = 80%

### Polycystic ovarian syndrome: management

Polycystic ovarian syndrome (PCOS) is a complex condition of ovarian dysfunction thought to affect between 5-20% of women of reproductive age. Management is complicated and problem based

#### General

- weight reduction if appropriate
- if a women requires contraception then a combined oral contraceptive (COC) pill may help regulate her cycle and induce a monthly bleed (see below)

#### Hirsutism and acne

- a COC pill may be used help manage hirsutism. Possible options include a third generation COC which has fewer androgenic effects or co-cyprindiol which has an anti-androgen action. Both of these types of COC may carry an increased risk of venous thromboembolism
- if doesn't respond to COC then topical eflornithine may be tried
- spironolactone, flutamide and finasteride may be used under specialist supervision

#### Infertility

- weight reduction if appropriate
- the management of infertility in patients with PCOS should be supervised by a specialist. There is an ongoing debate as to whether metformin, clomifene or a combination should be used to stimulate ovulation
- a 2007 trial published in the New England Journal of Medicine suggested clomifene was the most effective treatment. There is a potential risk of multiple pregnancies with anti-oestrogen\* therapies such as clomifene

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#### External links

[NEJM](#)

Summary of recent trial comparing metformin to clomifene



metformin is also used, either combined with clomifene or alone, particularly in patients who are obese

- gonadotrophins

\*work by occupying hypothalamic oestrogen receptors without activating them.  
This interferes with the binding of oestradiol and thus prevents negative feedback inhibition of FSH secretion

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**Question 6 of 81**


Which one of the following is least likely to cause a bullous rash?

- A. Furosemide
- B. Friction
- ✓ C. Lichen planus
- ✗ D. Insect bite
- E. Epidermolysis bullosa

The bullous variant of lichen planus is extremely rare

**Bullous disorders**

Causes of skin bullae

- congenital: epidermolysis bullosa
- autoimmune: bullous pemphigoid, pemphigus
- insect bite
- trauma/friction
- drugs: barbiturates, furosemide

**Rate question:**

**Question stats**

A		14.3%
B		7.8%
C		69.6%
D		3.8%
E		4.5%

69.6% of users answered this question correctly

Session score = 66.7%

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# Question 7 of 81



Which one of the following steroid creams is classified as moderately potent?

- ✓ A. Eumovate
- B. Cutivate
- ✗ C. Betnovate
- D. Hydrocortisone 1%
- E. Dermovate

## Question stats

A	<div></div>	57.3%
B	<div></div>	6.1%
C	<div></div>	31.9%
D	<div></div>	0.6%
E	<div></div>	4.1%

57.3% of users answered this question correctly

Session score = 57.1%

## Eczema: topical steroids

Use weakest steroid cream which controls patients symptoms

The table below shows topical steroids by potency

Mild	Moderate	Potent	Very potent
Hydrocortisone 0.5-2.5%	Betamethasone valerate 0.025% (Betnovate RD)  Clobetasone butyrate 0.05% (Eumovate)	Fluticasone propionate 0.05% (Cutivate)  Betamethasone valerate 0.1% (Betnovate)	Clobetasol propionate 0.05% (Dermovate)

Finger tip rule

- 1 finger tip unit (FTU) = 0.5 g, sufficient to treat a skin area about twice that of the flat of an adult hand

Topical steroid doses for eczema in adults

Area of skin	Fingertip units per dose
Hand and fingers (front and back)	1.0
A foot (all over)	2.0
Front of chest and abdomen	7.0
Back and buttocks	7.0
Face and neck	2.5
An entire arm and hand	4.0
An entire leg and foot	8.0

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## External links

[British Association of Dermatologists](#)

Atopic eczema guidelines



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# Question 8 of 81



Which one of the following statements regarding pressure ulcers is true?

- A. The most common site is above the medial malleolus
-  B. Most patients have a history of peripheral arterial disease
- C. Wounds should be regularly swabbed to exclude infection
- D. Cleaning the ulcer with soap and water should be encouraged
-  E. A moist wound environment encourages ulcer healing

## Question stats

A		10.6%
B		11%
C		5.5%
D		6.4%
E		66.5%

66.5% of users answered this question correctly

Session score = 50%

## Pressure ulcers

The following is based on a 2009 NHS Best Practice Statement. Please see the link for further details. Some selected points are listed below. NICE also published guidelines in 2005.

Pressure ulcers develop in patients who are unable to move parts of their body due to illness, paralysis or advancing age. They typically develop over bony prominences such as the sacrum or heel. The following factors predispose to the development of pressure ulcers:

- malnourishment
- incontinence
- lack of mobility
- pain (leads to a reduction in mobility)

Grading of pressure ulcers - the following is taken from the European Pressure Ulcer Advisory Panel classification system.

<b>Grade 1</b>	Non-blanchable erythema of intact skin. Discolouration of the skin, warmth, oedema, induration or hardness may also be used as indicators, particularly on individuals with darker skin
<b>Grade 2</b>	Partial thickness skin loss involving epidermis or dermis, or both. The ulcer is superficial and presents clinically as an abrasion or blister
<b>Grade 3</b>	Full thickness skin loss involving damage to or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia.
<b>Grade 4</b>	Extensive destruction, tissue necrosis, or damage to muscle, bone or supporting structures with or without full thickness skin loss

## Management

- a moist wound environment encourages ulcer healing. Hydrocolloid dressings and hydrogels may help facilitate this. The use of soap should be discouraged to avoid drying the wound

## RCGP curriculum

9 - Care of Older Adults

[Curriculum statement](#)

## External links

[NHS](#)

Prevention and management of pressure ulcers

[NICE](#)

The prevention and treatment of pressure ulcers



- wound swabs should not be done routinely as the vast majority of pressure ulcers are colonised with bacteria. The decision to use systemic antibiotics should be taken on a clinical basis (e.g. Evidence of surrounding cellulitis)
- consider referral to the tissue viability nurse
- surgical debridement may be beneficial for selected wounds

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### Question 9 of 81



A 23-year-old man presents with an itchy skin condition. Which one of the following is not part of the UK Working Party Diagnostic Criteria for atopic eczema?



- A. History of asthma
- B. Responds to topical steroids
- C. History of flexural involvement
- D. Onset below age 2 years
- E. History of generally dry skin

Whilst response to topical steroids provides useful clinical information it is not part of the diagnostic criteria. A wide variety of skin conditions can improve with topical steroid therapy.

#### Eczema: diagnosis

UK Working Party Diagnostic Criteria for Atopic Eczema

An itchy skin condition in the last 12 months

Plus three or more of

- onset below age 2 years\*
- history of flexural involvement\*\*
- history of generally dry skin
- personal history of other atopic disease\*\*\*
- visible flexural dermatitis

\*not used in children under 4 years

\*\*or dermatitis on the cheeks and/or extensor areas in children aged 18 months or under

\*\*\*in children aged under 4 years, history of atopic disease in a first degree relative may be included

**Rate question:**

#### Question stats

A	3.2%
B	39.3%
C	7.7%
D	23%
E	26.7%

39.3% of users answered this question correctly

Session score = 44.4%

#### RCGP curriculum

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#### External links

[British Association of Dermatologists](#)

Atopic eczema guidelines



# Question 10 of 81



A farmer presents with a tender lesion on his finger:



What is the most likely diagnosis?

- ☒ A. Paronychia
- ☒ B. Orf
- C. Tetanus
- D. Anthrax
- E. Hand, foot and mouth disease

## Orf

Orf is generally a condition found in sheep and goats although it can be transmitted to humans. It is caused by the parapox virus.

In animals

- 'scabby' lesions around the mouth and nose

In humans

- generally affects the hands and arms
- initially small, raised, red-blue papules
- later may increase in size to 2-3 cm and become flat-topped and

## Question stats

A	<div style="width: 25.7%;"></div>	25.7%
B	<div style="width: 67.4%;"></div>	67.4%
C	<div style="width: 0.5%;"></div>	0.5%
D	<div style="width: 4.7%;"></div>	4.7%
E	<div style="width: 1.6%;"></div>	1.6%

67.4% of users answered this question correctly

Session score = 40%

## RCGP curriculum

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haemorrhagic

Rate question:



**Question 11 of 81**


Please look at the multiple red lesions in the image below:



Image used on license from [DermNet NZ](#)



Which one of the following statements regarding these lesions is correct?

- A. They blanch on pressure
- B. Biopsy is required to exclude malignancy
- ✓ C. They affect men and women equally
- D. They are more common in patients who take statins
- ✗ E. Patients with multiple skin lesions often have iron deficiency anaemia

**Question stats**

A	15.7%
B	3.9%
C	54.9%
D	14.1%
E	11.4%

54.9% of users answered this question correctly

Session score = 36.4%

**RCGP curriculum**

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**Cherry haemangioma**

Cherry haemangiomas (Campbell de Morgan spots) are benign skin lesions which contain an abnormal proliferation of capillaries. They are more common with advancing age and affect men and women equally.

**Features**

- erythematous, papular lesions
- typically 1-3 mm in size
- non-blanching
- not found on the mucous membranes



As they are benign no treatment is usually required.

**Rate question:**

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**Question 12 of 81**

Please look at the skin lesion on the side of the nose:



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Which one of the following statements is correct about this type of lesion?

- A. They are also known as red moles
- B. They are more common in the lower part of the torso
- C. Alcoholic liver disease is the most common cause
- D. They are non-blanching
- E. **Around 10-15% of healthy people will have one or more of these lesions**

**Question stats**

A	5.7%
B	3.2%
C	17.3%
D	8.9%
E	65%

65% of users answered this question correctly

Session score = 41.7%

**RCGP curriculum**

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**Spider naevi**

Spider naevi (also called spider angiomas) describe a central red papule with surrounding capillaries. The lesions blanch upon pressure. Spider naevi are almost always found on the upper part of the body.

Around 10-15% of people will have one or more spider naevi and they are more common in childhood. Other associations

- liver disease
- pregnancy
- combined oral contraceptive pill



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# Question 13 of 81



A 47-year-old woman complains of an itchy neck and scalp:



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This skin condition is thought to occur as a result of a reaction to:

- ☒ A. *Trichophyton rubrum*
- ☐ B. *Trichophyton schoenleinii*
- ☐ C. *Microsporum audouinii*
- ☐ D. *Candida albicans*
- ☒ E. *Malassezia furfur*

## Question stats

A	29.2%
B	5.2%
C	4.5%
D	1.2%
E	60%

60% of users answered this question correctly

Session score = 38.5%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Overview and pictures of seborrhoeic dermatitis

[Clinical Knowledge Summaries](#)

Seborrhoeic dermatitis guidelines

## Seborrhoeic dermatitis in adults

Seborrhoeic dermatitis in adults is a chronic dermatitis thought to be caused by an inflammatory reaction related to a proliferation of a normal skin inhabitant, a fungus called *Malassezia furfur* (formerly known as *Pityrosporum ovale*). It is common, affecting around 2% of the general population

### Features

- eczematous lesions on the sebum-rich areas: scalp (may cause dandruff), periorbital, auricular and nasolabial folds
- otitis externa and blepharitis may develop

Associated conditions include



- HIV
- Parkinson's disease

#### Scalp disease management

- over the counter preparations containing zinc pyrithione ('Head & Shoulders') and tar ('Neutrogena T/Gel') are first-line
- the preferred second-line agent is ketoconazole
- selenium sulphide and topical corticosteroid may also be useful

#### Face and body management

- topical antifungals: e.g. Ketoconazole
- topical steroids: best used for short periods
- difficult to treat - recurrences are common

#### **Rate question:**



**Question 14 of 81**


Please look at the image below:



Image used on license from [DermNet NZ](#)


**Question stats**

A	<div style="width: 14.6%;"></div>	14.6%
B	<div style="width: 35.6%;"></div>	35.6%
C	<div style="width: 2.6%;"></div>	2.6%
D	<div style="width: 22.3%;"></div>	22.3%
E	<div style="width: 24.9%; background-color: green;"></div>	24.9%

24.9% of users answered this question correctly

Session score = 35.7%

**RCGP curriculum**

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Which one of the following statements regarding this condition is true?



- A. They represent ocular tuberous xanthoma
- B. **They are most commonly associated with hypertriglyceridaemia**
- C. Complications include malignant change in 0.2-0.5% of patients over 20 years
- D. All patients should be offered a statin
- E. **Treatment options include laser therapy**



This patient has xanthelasma around the left eye. Not all patients with xanthelasma have hypercholesterolaemia and hence not all require statins.

**Hyperlipidaemia: xanthomata**

Characteristic xanthomata seen in hyperlipidaemia:

Palmar xanthoma

- remnant hyperlipidaemia
- may less commonly be seen in familial hypercholesterolaemia

Eruptive xanthoma are due to high triglyceride levels and present as multiple red/yellow vesicles on the extensor surfaces (e.g. elbows, knees)



### Causes of eruptive xanthoma

- familial hypertriglyceridaemia
- lipoprotein lipase deficiency

### Tendon xanthoma, tuberous xanthoma, xanthelasma

- familial hypercholesterolaemia
- remnant hyperlipidaemia

Xanthelasma are also seen without lipid abnormalities

Management of xanthelasma, options include:

- surgical excision
- topical trichloroacetic acid
- laser therapy
- electrodesiccation

**Rate question:**



# Question 16 of 231



A 19-year-old man comes for review after burning himself with an iron. On examination he has a 4 by 3 cm area of pale pink skin the left forearm. In the middle of the area there are two small, fluid filled blisters. What is the most accurate description for this type of injury?



- A. Partial thickness (deep dermal) burn
- B. Partial thickness (superficial dermal) burn
- C. Superficial epidermal burn
- D. Major scald
- E. Minor scald

## Question stats

A	<div></div>	13.4%
B	<div></div>	60.1%
C	<div></div>	20.5%
D	<div></div>	2.4%
E	<div></div>	3.6%

60.1% of users answered this question correctly

Session score = 43.8%

## Burns

The following is based on guidance issued by Clinical Knowledge Summaries (please see the link for more details).

### Immediate first aid

- airway, breathing, circulation
- burns caused by heat: remove the person from the source. Within 20 minutes of the injury irrigate the burn with cool (not iced) water for between 10 and 30 minutes. Cover the burn using cling film, layered, rather than wrapped around a limb
- electrical burns: switch off power supply, remove the person from the source
- chemical burns: brush any powder off then irrigate with water. Attempts to neutralise the chemical are not recommended

### Assessing the extent of the burn

- Wallace's Rule of Nines: head + neck = 9%, each arm = 9%, each anterior part of leg = 9%, each posterior part of leg = 9%, anterior chest = 9%, posterior chest = 9%, anterior abdomen = 9%, posterior abdomen = 9%
- Lund and Browder chart: the most accurate method
- the palmar surface is roughly equivalent to 1% of total body surface area (TBSA). Not accurate for burns > 15% TBSA

### Assessing the depth of the burn

Modern terminology	Former terminology	Appearance
Superficial epidermal	First degree	Red and painful

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[Clinical Knowledge Summaries](#)

Burns and scalds



Partial thickness (superficial dermal)	Second degree	Pale pink, painful, blistered
Partial thickness (deep dermal)	Second degree	Typically white but may have patches of non-blanching erythema. Reduced sensation
Full thickness	Third degree	White/brown/black in colour, no blisters, no pain

#### Referral to secondary care

- all deep dermal and full-thickness burns.
- superficial dermal burns of more than 10% TBSA in adults, or more than 5% TBSA in children
- superficial dermal burns involving the face, hands, feet, perineum, genitalia, or any flexure, or circumferential burns of the limbs, torso, or neck
- any inhalation injury
- any electrical or chemical burn injury
- suspicion of non-accidental injury

#### Management of burns

- initial first aid as above
- review referral criteria to ensure can be managed in primary care
- superficial epidermal: symptomatic relief - analgesia, emollients etc
- superficial dermal: cleanse wound, leave blister intact, non-adherent dressing, avoid topical creams, review in 24 hours

#### Rate question:



# Question 15 of 81



A 36-year-old female with a history of ulcerative colitis is diagnosed as having pyoderma gangrenosum. She presented 4 days ago with a 3 cm lesion on her right shin which rapidly ulcerated and is now painful:



Image used on license from [DermNet NZ](#)

What is the most appropriate management?

- A. Topical hydrocortisone
- ✓ B. Oral prednisolone
- C. Surgical debridement
- ✗ D. Topical tacrolimus
- E. Intravenous pulsed methylprednisolone

Topical therapy does have a role in pyoderma gangrenosum and it may seem intuitive to try this first before moving on to systemic treatment. However, pyoderma gangrenosum has the potential to evolve rapidly and for this reason oral prednisolone is usually given as initial treatment. For a review see BMJ 2006;333:181-184

## Pyoderma gangrenosum

### Features

- typically on the lower limbs
- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border

### Question stats

A	9.5%
B	62.5%
C	12.6%
D	5.5%
E	10%

62.5% of users answered this question correctly

Session score = 33.3%

### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

### External links

[DermNet NZ](#)

Picture of pyoderma gangrenosum

[DermNet NZ](#)

Stoma skin problems



may be accompanied systemic symptoms e.g. Fever, myalgia

#### Causes\*

- idiopathic in 50%
- inflammatory bowel disease: ulcerative colitis, Crohn's
- rheumatoid arthritis, SLE
- myeloproliferative disorders
- lymphoma, myeloid leukaemias
- monoclonal gammopathy (IgA)
- primary biliary cirrhosis

#### Management

- the potential for rapid progression is high in most patients and most doctors advocate oral steroids as first-line treatment
- other immunosuppressive therapy, for example ciclosporin and infliximab, have a role in difficult cases

\*note whilst pyoderma gangrenosum can occur in diabetes mellitus it is rare and is generally not included in a differential of potential causes

#### **Rate question:**



# Question 16 of 81



An elderly man develops a generalised pruritic rash:



Image used on license from [DermNet NZ](#) and with the kind permission of Prof Raimo Suhonen

Which one of the following is the mainstay of treatment?

- A. Gluten free diet
- B. Phototherapy
- ☒ C. Oral corticosteroids
- ☐ D. Long-term oral antibiotics
- E. Potent topical corticosteroids

## Question stats

A	3.9%
B	0.7%
C	90.4%
D	1.2%
E	3.8%

90.4% of users answered this question correctly

Session score = 31.3%

## RCGP curriculum

15.10 - Skin Problems

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## External links

[DermNet NZ](#)

Bullous pemphigoid

[British Association of Dermatologists](#)

Bullous pemphigoid guidelines

## Bullous pemphigoid

Bullous pemphigoid is an autoimmune condition causing sub-epidermal blistering of the skin. This is secondary to the development of antibodies against hemidesmosomal proteins BP180 and BP230

Bullous pemphigoid is more common in elderly patients. Features include

- itchy, tense blisters typically around flexures
- the blisters usually heal without scarring
- mouth is usually spared\*



### Skin biopsy

- immunofluorescence shows IgG and C3 at the dermoepidermal junction

### Management

- referral to dermatologist for biopsy and confirmation of diagnosis
- oral corticosteroids are the mainstay of treatment
- topical corticosteroids, immunosuppressants and antibiotics are also used

\*in reality around 10-50% of patients have a degree of mucosal involvement. It would however be unusual for an exam question to mention mucosal involvement as it is seen as a classic differentiating feature between pemphigoid and pemphigus.

### Rate question:



### Question 17 of 81



A 25-year-old male presents with extensive patches of altered pigmentation on his front, back, face and thighs. There is mild pruritus. A diagnosis of extensive pityriasis versicolor is made. What is the most appropriate management?

- A. Oral metronidazole
- B. Topical terbinafine
- ✓ C. Oral itraconazole
- D. Topical selenium sulphide
- ✗ E. Oral terbinafine

Given the extensive nature of the lesions systemic therapy is indicated in this case

### Pityriasis versicolor

Pityriasis versicolor, also called tinea versicolor, is a superficial cutaneous fungal infection caused by *Malassezia furfur* (formerly termed *Pityrosporum ovale*)

#### Features

- most commonly affects trunk
- patches may be hypopigmented, pink or brown (hence versicolor)
- scale is common
- mild pruritus

#### Predisposing factors

- occurs in healthy individuals
- immunosuppression
- malnutrition
- Cushing's

#### Management

- topical antifungal e.g. terbinafine or selenium sulphide
- if extensive disease or failure to respond to topical treatment then consider oral itraconazole

#### Rate question:

### Question stats

A	2.1%
B	11.1%
C	36.9%
D	31.7%
E	18.1%

36.9% of users answered this question correctly

Session score = 29.4%

### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

### External links

[DermNet NZ](#)

Picture of pityriasis versicolor 1

[DermNet NZ](#)

Picture of pityriasis versicolor 2

[DermNet NZ](#)

Hypopigmentation post pityriasis versicolor



# Question 18 of 81



An elderly man develops a blistering skin rash:



Image used on license from [DermNet NZ](#)

## Question stats

A	9.1%
B	3%
C	11.7%
D	13.3%
E	62.9%

62.9% of users answered this question correctly

Session score = 27.8%

## RCGP curriculum

15.10 - Skin Problems

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## External links

[DermNet NZ](#)

Bullous pemphigoid

[British Association of Dermatologists](#)

Bullous pemphigoid guidelines

Which one of the following statements regarding the likely diagnosis is correct?

- ☒ A. It is associated with coeliac disease
- ☐ B. Eye involvement is the most common complication
- ☐ C. Topical corticosteroids are the mainstay of treatment
- ☐ D. It is less common than pemphigus vulgaris
- ☒ E. The blisters usually heal without scarring

## Bullous pemphigoid

Bullous pemphigoid is an autoimmune condition causing sub-epidermal blistering of the skin. This is secondary to the development of antibodies against hemidesmosomal proteins BP180 and BP230

Bullous pemphigoid is more common in elderly patients. Features include

- itchy, tense blisters typically around flexures
- the blisters usually heal without scarring
- mouth is usually spared\*

Skin biopsy



- immunofluorescence shows IgG and C3 at the dermoepidermal junction

### Management

- referral to dermatologist for biopsy and confirmation of diagnosis
- oral corticosteroids are the mainstay of treatment
- topical corticosteroids, immunosuppressants and antibiotics are also used

\*in reality around 10-50% of patients have a degree of mucosal involvement. It would however be unusual for an exam question to mention mucosal involvement as it is seen as a classic differentiating feature between pemphigoid and pemphigus.

### Rate question:

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**Question 19 of 81**


A 74-year-old lady with a history of hypothyroidism presents in January to her GP with a rash down the right side of her body. On examination an erythematous rash with patches of hyperpigmentation and telangiectasia is found. What is the likely diagnosis?

- A. Erythema marginatum
- B. Herpes zoster
- C. Pretibial myxoedema
- ☒ D. Erythema ab igne
- E. Xanthomata



This is a classic presentation of erythema ab igne. Despite the name, pretibial myxoedema is associated with hyperthyroidism rather than hypothyroidism.

Hypothyroidism can make patients feel cold and hence more likely to sit next a heater / fire.

**Erythema ab igne**

Erythema ab igne is a skin disorder caused by over exposure to infrared radiation. Characteristic features include erythematous patches with hyperpigmentation and telangiectasia. A typical history would be an elderly women who always sits next to an open fire

If the cause is not treated then patients may go on to develop squamous cell skin cancer

**Rate question:**

**Question stats**

<b>A</b>		21%
<b>B</b>		2%
<b>C</b>		8.9%
<b>D</b>		67%
<b>E</b>		1.1%

67% of users answered this question correctly

Session score = 31.6%

**RCGP curriculum**

15.10 - Skin Problems

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**External links**

[DermNet NZ](#)

Erythema ab igne



# Question 20 of 81



An 18-year-old female presents to her GP complaining of scalp hair loss. Which one of the following conditions is least likely to be responsible?

- ✓ A. Porphyria cutanea tarda
- ✗ B. Discoid lupus
- C. Tinea capitis
- D. Alopecia areata
- E. Telogen effluvium

Porphyria cutanea tarda is a recognised cause of hypertrichosis

## Alopecia

Alopecia may be divided into scarring (destruction of hair follicle) and non-scarring (preservation of hair follicle)

### Scarring alopecia

- trauma, burns
- radiotherapy
- lichen planus
- discoid lupus
- tinea capitis\*

### Non-scarring alopecia

- male-pattern baldness
- drugs: cytotoxic drugs, carbimazole, heparin, oral contraceptive pill, colchicine
- nutritional: iron and zinc deficiency
- autoimmune: alopecia areata
- telogen effluvium (hair loss following stressful period e.g. surgery)
- trichotillomania

\*scarring would develop in untreated tinea capitis if a kerion develops

Rate question:

## Question stats

A	<div></div>	72.7%
B	<div></div>	6%
C	<div></div>	2.9%
D	<div></div>	3%
E	<div></div>	15.4%

72.7% of users answered this question correctly

Session score = 30%

## RCGP curriculum

15.10 - Skin Problems

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# Question 21 of 81



A 55-year-old female is referred to dermatology by her GP due to a lesions over both shins. On examination symmetrical erythematous lesions are found with an orange peel texture. What is the likely diagnosis?

- ✓ A. Pretibial myxoedema
- B. Pyoderma gangrenosum
- C. Necrobiosis lipoidica diabetorum
- ✗ D. Erythema nodosum
- E. Syphilis

## Question stats

A	<div></div>	77.4%
B	<div></div>	1.2%
C	<div></div>	17.2%
D	<div></div>	3.9%
E	<div></div>	0.2%

77.4% of users answered this question correctly

Session score = 28.6%

## Shin lesions

The differential diagnosis of shin lesions includes the following conditions:

- erythema nodosum
- pretibial myxoedema
- pyoderma gangrenosum
- necrobiosis lipoidica diabetorum

Below are the characteristic features:

### Erythema nodosum

- symmetrical, erythematous, tender, nodules which heal without scarring
- most common causes are streptococcal infections, sarcoidosis, inflammatory bowel disease and drugs (penicillins, sulphonamides, oral contraceptive pill)

### Pretibial myxoedema

- symmetrical, erythematous lesions seen in Graves' disease
- shiny, orange peel skin

### Pyoderma gangrenosum

- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- idiopathic in 50%, may also be seen in inflammatory bowel disease, connective tissue disorders and myeloproliferative disorders

### Necrobiosis lipoidica diabetorum

- shiny, painless areas of yellow/red skin typically on the shin of diabetics

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet NZ](#)

Picture of erythema nodosum

[DermIS.net](#)

Picture of pretibial myxoedema

[DermNet NZ](#)

Picture of pyoderma gangrenosum

[DermNet NZ](#)

Picture of necrobiosis lipoidica



- often associated with telangiectasia

**Rate question:**



# Question 22 of 81



You refer a 60-year-old man to secondary care due to the persistent white patches on the inside of his mouth. He has a 40-pack-year history of smoking and has had the lesions for around two years.



## Question stats

A	2.4%
B	13.4%
C	4.7%
D	64.9%
E	14.5%

64.9% of users answered this question correctly

Session score = 27.3%

## RCGP curriculum

15.10 - Skin Problems

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Biopsies are taken which exclude lichen planus and squamous cell carcinoma. Which one of the following statements regarding the likely diagnosis is correct?



- A. All patients should be prescribed multivitamin tablets
- B. It is more common in diabetics
- C. Topical steroids are the first-line treatment
- D. It is a diagnosis of exclusion
- E. Malignant transformation occurs in less than 1 in 10,000 patients



## External links

[DermNet NZ](#)

Oral leukoplakia

## Leukoplakia

Leukoplakia is a premalignant condition which presents as white, hard spots on the mucous membranes of the mouth. It is more common in smokers.

Leukoplakia is said to be a diagnosis of exclusion. Candidiasis and lichen planus should be considered, especially if the lesions can be 'rubbed off'



Biopsies are usually performed to exclude alternative diagnoses such as squamous cell carcinoma and regular follow-up is required to exclude malignant transformation to squamous cell carcinoma, which occurs in around 1% of patients.

**Rate question:**

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**Question 23 of 81**


A 30-year-old man who is an immigrant from Albania presents to surgery with a translator. He has been unwell for a number of months and describes losing 8 kgs in weight and having chronic diarrhoea. On examination of his skin the following is seen:



Inside his mouth similar lesions can be seen on his hard palate and there is some bleeding around his gums. What is the most appropriate action?

- A. Give IM benzylpenicillin + phone 999
- B. Order a chest x-ray
- ☒ C. Order a HIV test
- D. Start vitamin C supplements
- E. Order hepatitis C test + cryoglobulin screen

**Question stats**

A	5.4%
B	7.8%
C	74.4%
D	9%
E	3.5%

74.4% of users answered this question correctly

Session score = 30.4%

**RCGP curriculum**

15.10 - Skin Problems

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**External links**

[DermIS.net](#)

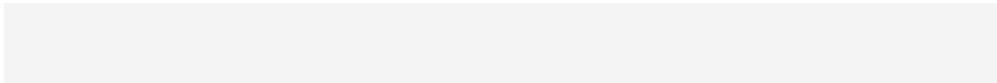
Picture of Kaposi's sarcoma

**HIV: Kaposi's sarcoma**
**Kaposi's sarcoma**

- caused by HHV-8 (human herpes virus 8)
- presents as purple papules or plaques on the skin or mucosa (e.g. gastrointestinal and respiratory tract)
- skin lesions may later ulcerate
- respiratory involvement may cause massive haemoptysis and pleural effusion
- radiotherapy + resection

**Rate question:**





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## Question 24 of 81



This 17-year-old man has a history of asthma and eczema but is normally fit and well. Yesterday he developed a rash on face with extends down to his torso. He feels generally unwell with flu-like symptoms.



Image used on license from [DermNet NZ](#)



What is the most likely diagnosis?

- A. Erysipelas
- B. Stevens-Johnson syndrome
- C. Impetigo
- ✓ D. Eczema herpeticum
- E. Allergic contact dermatitis

## Question stats

A	6.1%
B	4.7%
C	3.7%
D	84.5%
E	0.9%

84.5% of users answered this question correctly

Session score = 33.3%

## RCGP curriculum

15.10 - Skin Problems

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## Eczema herpeticum

Eczema herpeticum describes a severe primary infection of the skin by herpes simplex virus 1 or 2. It is more commonly seen in children with atopic eczema. As it is potentially life threatening children should be admitted for IV aciclovir

Rate question:







# Question 17 of 231



A 23-year-old man presents as he is concerned about recent hair loss. Examination reveals the following:



What is the most likely diagnosis?



- A. Telogen effluvium
- B. Alopecia areata
- C. Tinea capitis
- D. Male-pattern baldness
- E. Discoid lupus erythematosus

## Alopecia areata

Alopecia areata is a presumed autoimmune condition causing localised, well demarcated patches of hair loss. At the edge of the hair loss, there may be small, broken 'exclamation mark' hairs

Hair will regrow in 50% of patients by 1 year, and in 80-90% eventually. Careful explanation is therefore sufficient in many patients. Other treatment options include:

- topical or intralesional corticosteroids
- topical minoxidil
- phototherapy
- dithranol

## Question stats

A	1.5%
B	85.2%
C	12.2%
D	0.3%
E	0.8%

85.2% of users answered this question correctly

Session score = 47.1%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[British Association of Dermatologists](#)

Alopecia areata guidelines

[Clinical Knowledge Summaries](#)

Alopecia areata guidelines



- contact immunotherapy
- wigs

**Rate question:**



# Question 25 of 81



A 45-year-old man who presented with itchy lesions on his hands is diagnosed with scabies. It is decided to treat him with permethrin 5%. You have explained the need to treat all members of the household and hot wash all bedding and clothes. What advice should be given about applying the cream?

- A. From the neck down + leave for 12 hours
- B. All skin including scalp + leave for 12 hours + retreat in 2 days
- ✓ C. All skin including scalp + leave for 12 hours + retreat in 7 days
- D. From the neck down + leave for 4 hours
- ✗ E. From the neck down + leave for 12 hours + retreat in 7 days

Scabies - permethrin treatment: all skin including scalp + leave for 12 hours + retreat in 7 days

The BNF advises to apply the insecticide to all areas, including the face and scalp, contrary to the manufacturer's recommendation (and common practice).

## Scabies

Scabies is caused by the mite *Sarcoptes scabiei* and is spread by prolonged skin contact. It typically affects children and young adults.

The scabies mite burrows into the skin, laying its eggs in the stratum corneum. The intense pruritus associated with scabies is due to a delayed type IV hypersensitivity reaction to mites/eggs which occurs about 30 days after the initial infection.

### Features

- widespread pruritus
- linear burrows on the side of fingers, interdigital webs and flexor aspects of the wrist
- in infants the face and scalp may also be affected
- secondary features are seen due to scratching: excoriation, infection

### Management

- permethrin 5% is first-line
- malathion 0.5% is second-line
- give appropriate guidance on use (see below)
- pruritus persists for up to 4-6 weeks post eradication

Patient guidance on treatment (from Clinical Knowledge Summaries)

### Question stats

A	6.5%
B	3.7%
C	64.6%
D	1.2%
E	23.9%

64.6% of users answered this question correctly

Session score = 32%

### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

### External links

[National Prescribing Centre](#)  
2008 Scabies guidelines

[Postgraduate Medical Journal](#)  
Review of scabies

[Postgraduate Medical Journal](#)  
Scabies management



- avoid close physical contact with others until treatment is complete
- all household and close physical contacts should be treated at the same time, even if asymptomatic
- launder, iron or tumble dry clothing, bedding, towels, etc., on the first day of treatment to kill off mites.

The BNF advises to apply the insecticide to all areas, including the face and scalp, contrary to the manufacturer's recommendation. Patients should be given the following instructions:

- apply the insecticide cream or liquid to cool, dry skin
- pay close attention to areas between fingers and toes, under nails, armpit area, creases of the skin such as at the wrist and elbow
- allow to dry and leave on the skin for 8–12 hours for permethrin, or for 24 hours for malathion, before washing off
- reapply if insecticide is removed during the treatment period, e.g. If wash hands, change nappy, etc
- repeat treatment 7 days later

**Rate question:**

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# Question 26 of 81



A 34-year-old man presents with a three week history of an intensely itchy rash just below his knees. On examination he has a symmetrical vesicular rash as shown below and also some early lesions on the back of his arms.



Image used on license from [DermNet NZ](#) and with the kind permission of Prof Raimo Suhonen

Which one of the following antibodies is most likely to be positive?

- A. Anti-mitochondrial antibody
- ✓ B. Anti-gliadin antibody
- C. Anti-nuclear antibody
- D. Anti-neutrophil cytoplasmic antibody
- ✗ E. Anti-Jo-1 antibody

## Question stats

A	10.9%
B	56.7%
C	16.9%
D	8.7%
E	6.8%

56.7% of users answered this question correctly

Session score = 30.8%

## RCGP curriculum

15.10 - Skin Problems

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## External links

[DermNet NZ](#)

Dermatitis herpetiformis

## Dermatitis herpetiformis

Dermatitis herpetiformis is an autoimmune blistering skin disorder associated with coeliac disease. It is caused by deposition of IgA in the dermis.

### Features

- itchy, vesicular skin lesions on the extensor surfaces (e.g. elbows, knees buttocks)



### Diagnosis

- skin biopsy: direct immunofluorescence shows deposition of IgA in a granular pattern in the upper dermis

### Management

- gluten-free diet
- dapsone

**Rate question:**



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### Question 27 of 81



A 17-year-old male is reviewed six weeks after starting an oral antibiotic for acne vulgaris. He stopped taking the drug two weeks ago due to perceived alteration in his skin colour, and denies been exposed to strong sunlight for the past six months. On examination he has generalised increased skin pigmentation, including around the buttocks. Which one of the following antibiotics was he likely to be taking?

- A. Doxycycline
-  B. **Oxytetracycline**
- C. Tetracycline
- D. Erythromycin
-  E. **Minocycline**

Minocycline can cause irreversible skin pigmentation and is now considered a second line drug in acne. Photosensitivity secondary to tetracycline/doxycycline is less likely given the generalised distribution of the pigmentation and the failure to improve following drug withdrawal

### Acne vulgaris: management

Acne vulgaris is a common skin disorder which usually occurs in adolescence. It typically affects the face, neck and upper trunk and is characterised by the obstruction of the pilosebaceous follicles with keratin plugs which results in comedones, inflammation and pustules.






Acne may be classified into mild, moderate or severe:

- mild: open and closed comedones with or without sparse inflammatory lesions
- moderate acne: widespread non-inflammatory lesions and numerous papules and pustules
- severe acne: extensive inflammatory lesions, which may include nodules, pitting, and scarring

A simple step-up management scheme often used in the treatment of acne is as follows:

- single topical therapy (topical retinoids, benzyl peroxide)
- topical combination therapy (topical antibiotic, benzoyl peroxide, topical retinoid)
- oral antibiotics: e.g. Oxytetracycline, doxycycline. Improvement may not be seen for 3-4 months. Minocycline is now considered less appropriate due to the possibility of irreversible pigmentation. Gram negative folliculitis may occur as a complication of long-term antibiotic use - high-dose oral trimethoprim is effective if this occurs
- oral isotretinoin: only under specialist supervision

### Question stats

A		15.7%
B		7.7%
C		6.7%
D		1.3%
E		68.6%

68.6% of users answered this question correctly

Session score = 29.6%

### RCGP curriculum

15.10 - Skin Problems

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### External links

[Clinical Knowledge Summaries](#)

Acne vulgaris guidelines



There is no role for dietary modification in patients with acne

**Rate question:**

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# Question 28 of 81



Which one of the following treatments is least useful in the management of scalp psoriasis

- A. Steroid lotion
- ✓ B. Hydroxyurea lotion
- C. Tar shampoos
- ✗ D. Coconut oil compound shampoos
- E. Calcipotriol lotion

## Question stats

A	16.4%
B	58.1%
C	3.4%
D	18.8%
E	3.3%

58.1% of users answered this question correctly

Session score = 28.6%

## Psoriasis: management

SIGN released guidelines in 2010 on the management of psoriasis and psoriatic arthropathy. Please see the link for more details.

Chronic plaque psoriasis

- regular emollients may help to reduce scale loss and reduce pruritus
- for acute control SIGN recommend: 'Short term intermittent use of a potent topical corticosteroid or a combined potent corticosteroid plus calcipotriol

ointment is recommended to gain rapid improvement in plaque psoriasis.'

- 'For long term topical treatment of plaque psoriasis a vitamin D analogue (e.g. Calcipotriol) is recommended.'
- 'If a vitamin D analogue is ineffective or not tolerated then consider coal tar (solution, cream or lotion), tazarotene gel, or short contact dithranol (30 minute exposure in patients with a small number of relatively large plaques of psoriasis).

Steroids in psoriasis

- topical steroids are commonly used in flexural psoriasis and there is also a role for mild steroids in facial psoriasis. If steroids are ineffective for these conditions vitamin D analogues or tacrolimus ointment should be used second line
- SIGN caution against the long term use of potent or very potent topical steroids due to the risk of side-effects

Scalp psoriasis

- for short term control SIGN recommend either the use of potent topical corticosteroids or a combination of a potent corticosteroid and a vitamin D

analogue

## RCGP curriculum

15.10 - Skin Problems

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## External links

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2010 Psoriasis guidelines



- 'For patients with thick scaling of the scalp, initial treatment with overnight application of salicylic acid, tar preparations, or oil preparations (eg olive oil, coconut oil) to remove thick scale is recommended.

## Secondary care management

### Phototherapy

- narrow band ultraviolet B light (311-313nm) is now the treatment of choice
- photochemotherapy is also used - psoralen + ultraviolet A light (PUVA)
- adverse effects: skin ageing, squamous cell cancer (not melanoma)

### Systemic therapy

- methotrexate: useful if associated joint disease
- ciclosporin
- systemic retinoids
- biological agents: infliximab, etanercept and adalimumab
- ustekinumab (IL-12 and IL-23 blocker) is showing promise in early trials

### Mechanism of action of commonly used drugs:

- coal tar: probably inhibit DNA synthesis
- calcipotriol: vitamin D analogue which reduces epidermal proliferation and restores a normal horny layer
- dithranol: inhibits DNA synthesis, wash off after 30 mins, SE: burning, staining

### Rate question:



# Question 29 of 81



A middle aged man develops a non-pruritic rash after starting allopurinol therapy for gout. The rash develop within 24 hours and started on the back of his hands.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?



- A. Allopurinol-associated dermatitis
- B. **Plaque-type tophi**
- C. **Erythema multiforme**
- D. Erythema marginatum
- E. Eosinophilic folliculitis

## Question stats

A	4.1%
B	2.3%
C	84.7%
D	4.7%
E	4.3%

84.7% of users answered this question correctly

Session score = 27.6%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Erythema multiforme

## Erythema multiforme

### Features

- target lesions
- initially seen on the back of the hands / feet before spreading to the torso
- upper limbs are more commonly affected than the lower limbs
- pruritus is occasionally seen and is usually mild

If symptoms are severe and involve blistering and mucosal involvement the term Stevens-Johnson syndrome is used.



## Causes

- viruses: herpes simplex virus (the most common cause), Orf\*
- idiopathic
- bacteria: *Mycoplasma*, *Streptococcus*
- drugs: penicillin, sulphonamides, carbamazepine, allopurinol, NSAIDs, oral contraceptive pill, nevirapine
- connective tissue disease e.g. Systemic lupus erythematosus
- sarcoidosis
- malignancy

\*Orf is a skin disease of sheep and goats caused by a parapox virus

### Rate question:



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# Question 30 of 81



A 65-year-old woman presents with bullae on her forearms following a recent holiday in Spain. She also notes that the skin on her hands is extremely fragile and tears easily. In the past the patient has been referred to dermatology due to troublesome hypertrichosis. What is the most likely diagnosis?

- A. Pellagra
- B. Pemphigus vulgaris
-  C. **Epidermolysis bullosa**
- D. Bullous pemphigoid
-  E. **Porphyria cutanea tarda**

## Porphyria cutanea tarda

- blistering photosensitive rash
- hypertrichosis
- hyperpigmentation

## Porphyria cutanea tarda

Porphyria cutanea tarda is the most common hepatic porphyria. It is due to an inherited defect in uroporphyrinogen decarboxylase or caused by hepatocyte damage e.g. alcohol, oestrogens

### Features

- classically presents with photosensitive rash with blistering and skin fragility on the face and dorsal aspect of hands (most common feature)
- hypertrichosis
- hyperpigmentation

### Investigations






- urine: elevated uroporphyrinogen and pink fluorescence of urine under Wood's lamp

### Management

- chloroquine
- venesection

Rate question:

## Question stats

A		5.2%
B		9.5%
C		20%
D		14.7%
E		50.7%

50.7% of users answered this question correctly

Session score = 26.7%

## RCGP curriculum

15.10 - Skin Problems

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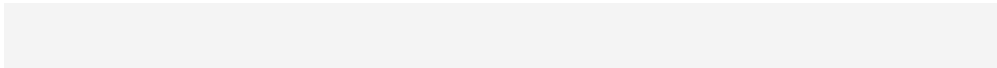
[Curriculum statement](#)

## External links

[DermNet NZ](#)

Picture of porphyria cutanea tarda





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## Question 31 of 81



A 67-year-old man presents with a rough, scaly lesion on his nose:



Image used on license from [DermNet NZ](#) and with the kind permission of Prof Raimo Suhonen

Which one of the following is not a treatment option for the management of this condition?



A. Topical diclofenac



B. Topical betnovate

C. Topical fluorouracil

D. Topical imiquimod

E. Cryotherapy

## Question stats

A	14.8%
B	55.3%
C	9.2%
D	9.7%
E	11.1%

55.3% of users answered this question correctly

Session score = 25.8%

## RCGP curriculum

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[Curriculum statement](#)

## External links

[British Association of Dermatologists](#)

2007 Actinic keratoses guidelines

[DermNet NZ](#)

Actinic keratoses

## Actinic keratoses

Actinic, or solar, keratoses (AK) is a common premalignant skin lesion that develops as a consequence of chronic sun exposure

## Features

- small, crusty or scaly, lesions
- may be pink, red, brown or the same colour as the skin
- typically on sun-exposed areas e.g. temples of head
- multiple lesions may be present



Management options include

- prevention of further risk: e.g. sun avoidance, sun cream
- fluorouracil cream: typically a 2 to 3 week course. The skin will become red and inflamed - sometimes topical hydrocortisone is given following fluorouracil to help settle the inflammation
- topical diclofenac: may be used for mild AKs. Moderate efficacy but much fewer side-effects
- topical imiquimod: trials have shown good efficacy
- cryotherapy
- curettage and cautery

**Rate question:**

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**Question 32 of 81**


A 4-year-old boy who is being investigated for development delay is noted to have a number of skin lesions similar to the one below:



Image used on license from [DermNet NZ](#)



What is the most likely diagnosis?

- A. Vitiligo
- B. Down's syndrome
- C. Tuberous sclerosis
- D. Edward's syndrome
- E. Neurofibromatosis


**Question stats**

A	21.2%
B	1%
C	58%
D	2.3%
E	17.5%

58% of users answered this question correctly

Session score = 25%

**RCGP curriculum**

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**Tuberous sclerosis**

Tuberous sclerosis (TS) is a genetic condition of autosomal dominant inheritance. Like neurofibromatosis, the majority of features seen in TS are neuro-cutaneous

Cutaneous features

- depigmented 'ash-leaf' spots which fluoresce under UV light
- roughened patches of skin over lumbar spine (Shagreen patches)
- adenoma sebaceum: butterfly distribution over nose
- fibromata beneath nails (subungual fibromata)
- café-au-lait spots\* may be seen



### Neurological features

- developmental delay
- epilepsy (infantile spasms or partial)
- intellectual impairment

### Also

- retinal hamartomas: dense white areas on retina (phakomata)
- rhabdomyomas of the heart
- gliomatous changes can occur in the brain lesions
- polycystic kidneys, renal angiomyolipomata

\*these of course are more commonly associated with neurofibromatosis. However a 1998 study of 106 children with TS found café-au-lait spots in 28% of patients

### Rate question:



# Question 33 of 81



The patient below has psoriasis:



Image used on license from [DermNet NZ](#)

Which treatment is he most likely to be using?

- A. Infliximab
- ✓ B. Dithranol
- C. Coal tar
- ✗ D. Calcipotriol
- E. PUVA

This image shows the typical brown staining that can result from dithranol treatment. The staining of the skin is temporary but patients should be warned it can permanently stain their clothes.

## Psoriasis: management

SIGN released guidelines in 2010 on the management of psoriasis and psoriatic arthropathy. Please see the link for more details.

Chronic plaque psoriasis

- regular emollients may help to reduce scale loss and reduce pruritus
- for acute control SIGN recommend: 'Short term intermittent use of a potent topical corticosteroid or a combined potent corticosteroid plus calcipotriol

ointment is recommended to gain rapid improvement in plaque psoriasis.'

- 'For long term topical treatment of plaque psoriasis a vitamin D analogue

## Question stats

A	11.1%
B	36%
C	13.8%
D	8.8%
E	30.3%

36% of users answered this question correctly

Session score = 24.2%

## RCGP curriculum

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## External links

[SIGN](#)

2010 Psoriasis guidelines



(e.g. Calcipotriol) is recommended.'

- 'If a vitamin D analogue is ineffective or not tolerated then consider coal tar (solution, cream or lotion), tazarotene gel, or short contact dithranol (30 minute exposure in patients with a small number of relatively large plaques of psoriasis).

### Steroids in psoriasis

- topical steroids are commonly used in flexural psoriasis and there is also a role for mild steroids in facial psoriasis. If steroids are ineffective for these conditions vitamin D analogues or tacrolimus ointment should be used second line
- SIGN caution against the long term use of potent or very potent topical steroids due to the risk of side-effects

### Scalp psoriasis

- for short term control SIGN recommend either the use of potent topical corticosteroids or a combination of a potent corticosteroid and a vitamin D

### analogue

- 'For patients with thick scaling of the scalp, initial treatment with overnight application of salicylic acid, tar preparations, or oil preparations (eg olive oil, coconut oil) to remove thick scale is recommended.

## Secondary care management

### Phototherapy

- narrow band ultraviolet B light (311-313nm) is now the treatment of choice
- photochemotherapy is also used - psoralen + ultraviolet A light (PUVA)
- adverse effects: skin ageing, squamous cell cancer (not melanoma)

### Systemic therapy

- methotrexate: useful if associated joint disease
- ciclosporin
- systemic retinoids
- biological agents: infliximab, etanercept and adalimumab
- ustekinumab (IL-12 and IL-23 blocker) is showing promise in early trials

### Mechanism of action of commonly used drugs:

- coal tar: probably inhibit DNA synthesis
- calcipotriol: vitamin D analogue which reduces epidermal proliferation and restores a normal horny layer
- dithranol: inhibits DNA synthesis, wash off after 30 mins, SE: burning, staining

### Rate question:



**Question 34 of 81**


A 78-year-old woman asks you for cream to treat a lesion on her left cheek. It has been present for the past nine months and is asymptomatic.



What is the most likely diagnosis?

- A. Solar lentigo
- B. Dermatofibroma
- ✓ C. **Lentigo maligna**
- D. Bowen's disease
- ✗ E. **Seborrhoeic keratosis**

These lesions often present a diagnostic dilemma. The asymmetrical nature of the lesion would however point away from a diagnosis of solar lentigo. These patients should be referred to dermatology

**Lentigo maligna**

Lentigo maligna is a type of melanoma in-situ. It typically progresses slowly but may at some stage become invasive causing lentigo maligna melanoma.

**Rate question:**

**Question stats**

A	16.4%
B	0.9%
C	64.2%
D	10.8%
E	7.7%

64.2% of users answered this question correctly

Session score = 23.5%

**RCGP curriculum**

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**Question 18 of 231**


A 19-year-old student presents with a 1 cm golden, crusted lesion on the border of her left lower lip. What is the most suitable management?



- A. Oral co-amoxiclav
- B. Oral penicillin
- C. Oral flucloxacillin
- D. Oral flucloxacillin + penicillin
- E. Topical fusidic acid



Impetigo - topical fusidic acid --> oral flucloxacillin / topical retapamulin

As the lesion is small and localised topical fusidic acid is recommended

**Impetigo: management**

Limited, localised disease

- topical fusidic acid is first-line
- topical retapamulin is used second-line if fusidic acid has been ineffective or is not tolerated
- MRSA is not susceptible to either fusidic acid or retapamulin. Topical mupirocin (Bactroban) should therefore be used in this situation

Extensive disease

- oral flucloxacillin
- oral erythromycin if penicillin allergic

**Rate question:**

**Question stats**

A	1.3%
B	1.4%
C	14.7%
D	1.9%
E	80.7%

80.7% of users answered this question correctly

Session score = 44.4%

**RCGP curriculum**

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**External links**

[Clinical Knowledge Summaries](#)  
Impetigo guidelines



## Question 35 of 81



Please look at this man's head:



Image used on license from [DermNet.NZ](http://DermNet.NZ)



These skin lesions have been present for the past year. What is the most likely diagnosis?

- A. Multiple basal cell carcinomas
- B. Squamous cell carcinoma
- C. **Actinic keratoses**
- D. Seborrhoeic dermatitis
- E. Seborrhoeic keratoses



## Question stats

A	2.2%
B	1.4%
C	81.9%
D	4.5%
E	10%

81.9% of users answered this question correctly

Session score = 25.7%

## RCGP curriculum

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## External links

[British Association of Dermatologists](#)

2007 Actinic keratoses guidelines

[DermNet.NZ](#)

Actinic keratoses

## Actinic keratoses

Actinic, or solar, keratoses (AK) is a common premalignant skin lesion that develops as a consequence of chronic sun exposure

## Features

- small, crusty or scaly, lesions
- may be pink, red, brown or the same colour as the skin
- typically on sun-exposed areas e.g. temples of head
- multiple lesions may be present



Management options include

- prevention of further risk: e.g. sun avoidance, sun cream
- fluorouracil cream: typically a 2 to 3 week course. The skin will become red and inflamed - sometimes topical hydrocortisone is given following fluorouracil to help settle the inflammation
- topical diclofenac: may be used for mild AKs. Moderate efficacy but much fewer side-effects
- topical imiquimod: trials have shown good efficacy
- cryotherapy
- curettage and cautery

**Rate question:**

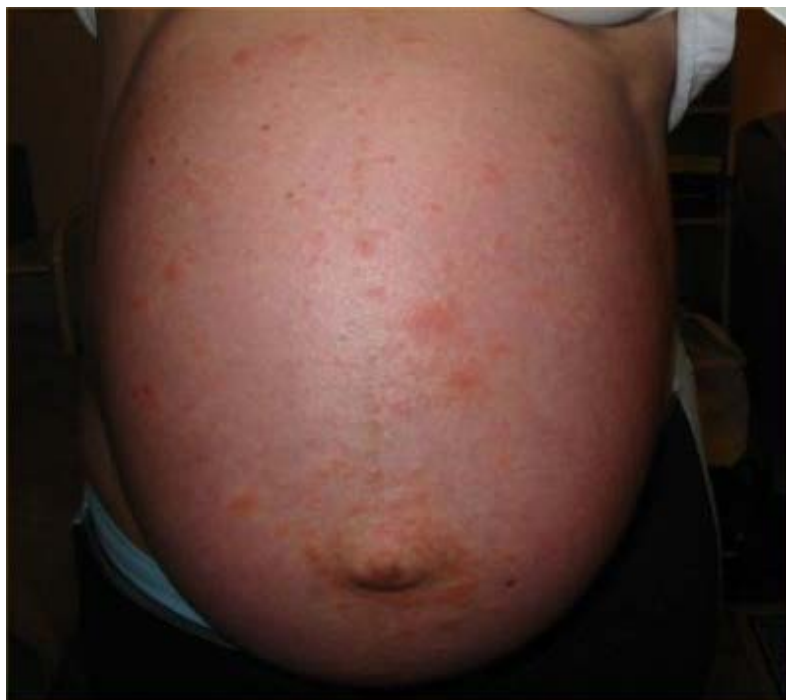
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# Question 36 of 81



A 24-year-old female in her third trimester of pregnancy mentions during a routine antenatal appointment that she has noticed an itchy rash around her umbilicus.



What is the most likely diagnosis?



- A. Polymorphic eruption of pregnancy
- B. Pompholyx
- C. Herpes gestationis
- D. Lichen planus
- E. Seborrhoeic dermatitis

## Question stats

A	<div style="width: 83.1%;"></div>	83.1%
B	<div style="width: 3.9%;"></div>	3.9%
C	<div style="width: 10.6%;"></div>	10.6%
D	<div style="width: 0.8%;"></div>	0.8%
E	<div style="width: 1.6%;"></div>	1.6%

83.1% of users answered this question correctly

Session score = 27.8%

## RCGP curriculum

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[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet NZ](#)

Polymorphic eruption of pregnancy

[DermNet NZ](#)

Pemphigoid gestationis

## Skin disorders associated with pregnancy

Polymorphic eruption of pregnancy

- pruritic condition associated with last trimester
- lesions often first appear in abdominal striae
- management depends on severity: emollients, mild potency topical steroids and oral steroids may be used



### Pemphigoid gestationis

- pruritic blistering lesions
- often develop in peri-umbilical region, later spreading to the trunk, back, buttocks and arms
- usually presents 2nd or 3rd trimester and is rarely seen in the first pregnancy
- oral corticosteroids are usually required

**Rate question:**

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**Question 37 of 81**

A 49-year-old woman complains of 'spots' on her cheeks. She has tried using her daughter's 'Clearasil' but this has had no effect.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Seborrhoeic dermatitis
- B. Systemic lupus erythematosus
- C. Perioral dermatitis
- D. Late-onset acne vulgaris
- ✓ E. **Acne rosacea**

Perioral dermatitis is a differential diagnosis but it does not commonly affect the cheeks.

**Acne rosacea**

Acne rosacea is a chronic skin disease of unknown aetiology

**Features**

- typically affects nose, cheeks and forehead
- flushing is often first symptom
- telangiectasia are common
- later develops into persistent erythema with papules and pustules
- rhinophyma
- ocular involvement: blepharitis

**Question stats**

A	2.5%
B	5.7%
C	1%
D	6.9%
E	83.8%

83.8% of users answered this question correctly

Session score = 29.7%

**RCGP curriculum**

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**External links**

[Clinical Knowledge Summaries](#)

Rosacea guidelines



## Management

- topical metronidazole may be used for mild symptoms (i.e. Limited number of papules and pustules, no plaques)
- more severe disease is treated with systemic antibiotics e.g. Oxytetracycline
- recommend daily application of a high-factor sunscreen
- camouflage creams may help conceal redness
- laser therapy may be appropriate for patients with prominent telangiectasia

### Rate question:

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Questions 38 to 40 of 81

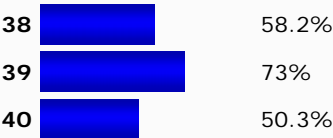


**Theme:** Skin disorders associated with malignancy

- A Oesophageal cancer
- B Lymphoma
- C Prostate cancer
- D Lung cancer
- E Head and neck cancers
- F Malignant melanoma
- G Gastric cancer
- H Colorectal cancer
- I Glucagonoma

**Question stats**

Average score for registered users:



Session score = 32.5%

For each one of the following rashes please select the malignancy that is most associated with it:

38. Tylosis



Oesophageal cancer

39. Acanthosis nigricans



Glucagonoma

The correct answer is Gastric cancer

40. Acquired ichthyosis



Lymphoma

**RCGP curriculum**

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**External links**

[DermNet NZ](#)

Picture of acanthosis nigricans

[DermNet NZ](#)

Picture of Sweet's syndrome

[DermNet NZ](#)

Picture of dermatomyositis

[DermNet NZ](#)

Picture of erythema gyratum repens

[DermNet NZ](#)

Picture of pyoderma gangrenosum

**Skin disorders associated with malignancy**

Paraneoplastic syndromes associated with internal malignancies:

Skin disorder	Associated malignancies
Acanthosis nigricans	Gastric cancer



Acquired ichthyosis	Lymphoma
Acquired hypertrichosis lanuginosa	Gastrointestinal and lung cancer
Dermatomyositis	Ovarian and lung cancer
Erythema gyratum repens	Lung cancer
Erythroderma	Lymphoma
Migratory thrombophlebitis	Pancreatic cancer
Necrolytic migratory erythema	Glucagonoma
Pyoderma gangrenosum (bullous and non-bullous forms)	Myeloproliferative disorders
Sweet's syndrome	Haematological malignancy e.g. Myelodysplasia - tender, purple plaques
Tylosis	Oesophageal cancer

**Rate question:**



**Question 41 of 81**


A 72-year-old woman who is known to have type 2 diabetes mellitus and heart failure is reviewed. One week ago she was treated with oral flucloxacillin and penicillin V for a right lower limb cellulitis. Unfortunately there has been no response to treatment. What is the most appropriate next line antibiotic?

- A. Co-amoxiclav
- B. Erythromycin
- C. **Clindamycin**
- D. **Vancomycin**
- E. Gentamicin


**Question stats**

<b>A</b>		14.9%
<b>B</b>		16.9%
<b>C</b>		57.9%
<b>D</b>		8.7%
<b>E</b>		1.5%

57.9% of users answered this question correctly

Session score = 31.7%

**Cellulitis: management**

The BNF recommends flucloxacillin as first-line treatment for mild/moderate cellulitis. Erythromycin is recommend in patients allergic to penicillin. Treatment failure is now commonly treated with oral clindamycin.

**Rate question:**

**RCGP curriculum**

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# Question 1 of 40 ✗



A 37-year-old man complains of 'flaky' eyebrows:



Image used on license from [DermNet NZ](#)

Which underlying condition is this skin condition most associated with?

- A. Diabetes mellitus
- ✗ B. Alcohol excess
- C. Sarcoidosis
- D. Tuberculosis
- ✓ E. HIV

## Question stats

A	<div style="width: 26.5%;"></div>	26.5%
B	<div style="width: 14.1%;"></div>	14.1%
C	<div style="width: 9.6%;"></div>	9.6%
D	<div style="width: 0.4%;"></div>	0.4%
E	<div style="width: 49.4%; background-color: green;"></div>	49.4%

49.4% of users answered this question correctly

Session score = 0%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Overview and pictures of seborrhoeic dermatitis

[Clinical Knowledge Summaries](#)

Seborrhoeic dermatitis guidelines

## Seborrhoeic dermatitis in adults

Seborrhoeic dermatitis in adults is a chronic dermatitis thought to be caused by an inflammatory reaction related to a proliferation of a normal skin inhabitant, a fungus called *Malassezia furfur* (formerly known as *Pityrosporum ovale*). It is common, affecting around 2% of the general population

### Features

- eczematous lesions on the sebum-rich areas: scalp (may cause dandruff), periorbital, auricular and nasolabial folds
- otitis externa and blepharitis may develop



Associated conditions include

- HIV
- Parkinson's disease

Scalp disease management

- over the counter preparations containing zinc pyrithione ('Head & Shoulders') and tar ('Neutrogena T/Gel') are first-line
- the preferred second-line agent is ketoconazole
- selenium sulphide and topical corticosteroid may also be useful

Face and body management

- topical antifungals: e.g. Ketoconazole
- topical steroids: best used for short periods
- difficult to treat - recurrences are common

**Rate question:**

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### Question 2 of 40



Which one of the following causes of pneumonia is most associated with the development of Stevens-Johnson syndrome?



- A. Legionella
- B. **Mycoplasma**
- C. Coxiella
- D. *Staphylococcus*
- E. Klebsiella

#### Question stats

A	<div></div>	4.9%
B	<div></div>	76%
C	<div></div>	1.7%
D	<div></div>	14.7%
E	<div></div>	2.7%

76% of users answered this question correctly

Session score = 50%

### Stevens-Johnson syndrome

Stevens-Johnson syndrome severe form of erythema multiforme associated with mucosal involvement and systemic symptoms

#### Features

- rash is typically maculopapular with target lesions being characteristic. May develop into vesicles or bullae
- mucosal involvement
- systemic symptoms: fever, arthralgia

#### Causes

- idiopathic
- bacteria: *Mycoplasma*, *Streptococcus*
- viruses: herpes simplex virus, Orf
- drugs: penicillin, sulphonamides, carbamazepine, allopurinol, NSAIDs, oral contraceptive pill
- connective tissue disease e.g. SLE
- sarcoidosis
- malignancy

#### RCGP curriculum

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**Rate question:**



### Question 3 of 40



You notice an abnormality on the neck of a 40-year-old woman:



Image used on license from [DermNet NZ](#) and with the kind permission of Prof Raimo Suhonen

Which one of the following is most associated with this appearance?

- A. Lung cancer
- B. Acute pancreatitis
- C. Haemochromatosis
- ✓ D. Polycystic ovarian syndrome
- E. Digoxin use

This patient has acanthosis nigricans which is associated with a number of hyperinsulinaemia states such as polycystic ovarian syndrome.

Whilst acanthosis nigricans can be associated with any type of cancer by far the most common malignant cause is gastrointestinal adenocarcinoma.

### Acanthosis nigricans

Describes symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin

Causes

- gastrointestinal cancer
- insulin-resistant diabetes mellitus

### Question stats

A	11.3%
B	2.9%
C	21.5%
D	60.8%
E	3.5%

60.8% of users answered this question correctly

Session score = 66.7%

### RCGP curriculum

15.10 - Skin Problems

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### External links

[DermNet NZ](#)

Acanthosis nigricans



- obesity
- polycystic ovarian syndrome
- acromegaly
- Cushing's disease
- hypothyroidism
- familial
- Prader-Willi syndrome
- drugs: oral contraceptive pill, nicotinic acid

**Rate question:**



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# Question 4 of 40



A 49-year-old man presents to his GP complaining of scalp hair loss. Examination reveals generalised scalp hair loss that does not follow the typical male-pattern distribution. Which one of the following medications is least likely to be responsible?

- A. Colchicine
- B. Cyclophosphamide
-  C. Heparin
- D. Carbimazole
-  E. Phenytoin

## Question stats

A		18.1%
B		7.8%
C		22.9%
D		6.5%
E		44.7%

44.7% of users answered this question correctly

Session score = 50%

Phenytoin is a recognised cause of hirsutism, rather than alopecia

## Alopecia

Alopecia may be divided into scarring (destruction of hair follicle) and non-scarring (preservation of hair follicle)

### Scarring alopecia

- trauma, burns
- radiotherapy
- lichen planus
- discoid lupus
- tinea capitis\*

### Non-scarring alopecia

- male-pattern baldness
- drugs: cytotoxic drugs, carbimazole, heparin, oral contraceptive pill, colchicine
- nutritional: iron and zinc deficiency
- autoimmune: alopecia areata
- telogen effluvium (hair loss following stressful period e.g. surgery)
- trichotillomania

\*scarring would develop in untreated tinea capitis if a kerion develops

Rate question:

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### Question 5 of 40



You are teaching the parent of a 4-year-old child with eczema on the correct use of emollients. Which one of the following statements is correct?



- A. Emollients should be applied against the direction of hair growth
- B. Around 100g / week should be used
- C. The ratio of emollient to topical steroid should be about 50:1
- D. **If a topical steroid is used then emollients should be applied about 30 minutes after the steroid**
- E. Emollients should be rubbed in to the skin until they 'disappear'

The British Association of Dermatologists recommend waiting 30 minutes.

### Eczema in children

Eczema occurs in around 15-20% of children and is becoming more common. It typically presents before 6 months but clears in around 50% of children by 5 years of age and in 75% of children by 10 years of age

#### Features

- in infants the face and trunk are often affected
- in younger children eczema often occurs on the extensor surfaces
- in older children a more typical distribution is seen, with flexor surfaces affected and the creases of the face and neck

#### Management

- avoid irritants
- simple emollients: large quantities should be prescribed (e.g. 250g / week), roughly in a ratio of with topical steroids of 10:1. If emollients are used in conjunction with a topical steroid they should be applied around 30 minutes after the steroid
- topical steroids
- in severe cases wet wraps and oral ciclosporin may be used

#### Rate question:

#### Question stats

A		2.5%
B		4.3%
C		6.7%
D		78%
E		8.6%

78% of users answered this question correctly

Session score = 60%

#### External links

[British Association of Dermatologists](#)

Atopic eczema guidelines



# Question 19 of 231



A 43-year-old woman comes for review. A few months ago she developed redness around her nose and cheeks. This is worse after drinking alcohol. She is concerned as one of her work colleagues asked her if she had a drink problem despite her drinking 10 units per week.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Mitral stenosis
- B. Seborrhoeic dermatitis
- C. Alcohol-related skin changes
- ☒ D. Acne rosacea
- E. Systemic lupus erythematosus

This is a typical history of acne rosacea.

## Acne rosacea

Acne rosacea is a chronic skin disease of unknown aetiology

### Features

- typically affects nose, cheeks and forehead
- flushing is often first symptom
- telangiectasia are common
- later develops into persistent erythema with papules and pustules
- rhinophyma

### Question stats

A	0.8%
B	2.1%
C	1.9%
D	86.2%
E	8.9%

86.2% of users answered this question correctly

Session score = 47.4%

### RCGP curriculum

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### External links

[Clinical Knowledge Summaries](#)

Rosacea guidelines



- ocular involvement: blepharitis

### Management

- topical metronidazole may be used for mild symptoms (i.e. Limited number of papules and pustules, no plaques)
- more severe disease is treated with systemic antibiotics e.g. Oxytetracycline
- recommend daily application of a high-factor sunscreen
- camouflage creams may help conceal redness
- laser therapy may be appropriate for patients with prominent telangiectasia

### Rate question:

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# Question 6 of 40



An 80-year-old woman presents due a 'sore' on the medial aspect of her right eye:



What is the most likely diagnosis?



- A. Basal cell carcinoma
- B. Squamous cell carcinoma
- C. Chalazion
- D. Styne
- E. Indurated dacryocystitis

The rolled, pearly edges with telangiectasia on the inferior border of the lesion make basal cell carcinoma the most likely diagnosis.

## Basal cell carcinoma

Basal cell carcinoma (BCC) is one of the three main types of skin cancer. Lesions are also known as rodent ulcers and are characterised by slow-growth and local invasion. Metastases are extremely rare. BCC is the most common type of cancer in the Western world.

### Features

- many types of BCC are described. The most common type is nodular BCC, which is described here
- sun-exposed sites, especially the head and neck account for the majority of lesions
- initially a pearly, flesh-coloured papule with telangiectasia
- may later ulcerate leaving a central 'crater'

Management options:

- surgical removal

### Question stats

A	<div style="width: 78.6%;"></div>	78.6%
B	<div style="width: 11.2%;"></div>	11.2%
C	<div style="width: 0.8%;"></div>	0.8%
D	<div style="width: 0.1%;"></div>	0.1%
E	<div style="width: 9.2%;"></div>	9.2%

78.6% of users answered this question correctly

Session score = 66.7%

### RCGP curriculum

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### External links

[DermNet NZ](#)

Basal cell carcinoma



- curettage
- cryotherapy
- topical cream: imiquimod, fluorouracil
- radiotherapy

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**Question 7 of 40**


A woman presents with painful erythematous lesions on her shins. Which one of the following is least associated with this presentation?

- X** A. **Pregnancy**
- B. Ulcerative colitis
- ✓** C. **Syphilis**
- D. Sarcoidosis
- E. Tuberculosis

It is rare for syphilis to cause erythema nodosum

**Erythema nodosum**
**Overview**

- inflammation of subcutaneous fat
- typically causes tender, erythematous, nodular lesions
- usually occurs over shins, may also occur elsewhere (e.g. forearms, thighs)
- usually resolves within 6 weeks
- lesions heal without scarring

**Causes**

- infection: streptococci, TB, brucellosis
- systemic disease: sarcoidosis, inflammatory bowel disease, Behcet's
- malignancy/lymphoma
- drugs: penicillins, sulphonamides, combined oral contraceptive pill
- pregnancy

**Rate question:**

**Question stats**

<b>A</b>		20.5%
<b>B</b>		5.1%
<b>C</b>		66.5%
<b>D</b>		2.2%
<b>E</b>		5.7%

66.5% of users answered this question correctly

Session score = 57.1%

**RCGP curriculum**

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**External links**

[DermNet NZ](#)

Erythema nodosum



# Question 8 of 40



A 56-year-old man with a history of epilepsy, atrial fibrillation and ischaemic heart disease is noted to have a rash on his forearms and face. Which one of the following drugs is most likely to be responsible?



- A. Verapamil
- B. Carbamazepine
- C. Amiodarone
- D. Digoxin
- E. Clopidogrel

## Question stats

A	4.9%
B	36.3%
C	52%
D	2.8%
E	3.9%

52% of users answered this question correctly

Session score = 50%

A rash on the forearms and face is typical of a photosensitivity rash

## Drugs causing photosensitivity

Causes of drug-induced photosensitivity

- thiazides
- tetracyclines, sulphonamides, ciprofloxacin
- amiodarone
- NSAIDs e.g. piroxicam
- psoralens
- sulphonylureas

Rate question:

## RCGP curriculum

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# Question 9 of 40

A 75-year-old asks you to have a look at a lesion on his right ear. It has developed slowly over the past few months and is tender to palpation.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Cystic chondromalacia
- B. Actinic keratosis
- ✓ C. **Chondrodermatitis nodularis heli**cis
- D. Perichondritis
- E. Keratin horn

## Question stats

A	1.2%
B	11.2%
C	83.7%
D	1%
E	2.9%

83.7% of users answered this question correctly

Session score = 55.6%

## RCGP curriculum

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## Chondrodermatitis nodularis heli

Chondrodermatitis nodularis heli

## Management

- reducing pressure on the ear: foam 'ear protectors' may be used during sleep
- other treatment options include cryotherapy, steroid injection, collagen



- injection
- surgical treatment may be used but there is a high recurrence rate

**Rate question:**



## Question 10 of 40



Which one of the following is not a management option for patients with hyperhidrosis?

- A. Endoscopic transthoracic sympathectomy
- B. Iontophoresis
- C. Topical aluminium chloride
- D. Botulinum toxin
- E. **Topical atropine**



## Question stats

<b>A</b>		4.3%
<b>B</b>		9.9%
<b>C</b>		2.7%
<b>D</b>		4.8%
<b>E</b>		78.3%

78.3% of users answered this question correctly

Session score = 60%

## Hyperhidrosis

Hyperhidrosis describes the excessive production of sweat

Management options include

- topical aluminium chloride preparations are first-line. Main side effect is skin irritation
- iontophoresis: particularly useful for patients with palmar, plantar and axillary hyperhidrosis
- botulinum toxin: currently licensed for axillary symptoms
- surgery: e.g. Endoscopic transthoracic sympathectomy. Patients should be made aware of the risk of compensatory sweating

**Rate question:**

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## External links

[Clinical Knowledge Summaries](#)  
Hyperhidrosis guidelines



**Question 11 of 40**


Which one of the following nails changes is least likely to occur in psoriasis?

- X** A. Loss of nail
- B. Onycholysis
- C. Pitting
- D. Subungual hyperkeratosis
- ✓** E. Yellow nail syndrome

**Question stats**

<b>A</b>		17%
<b>B</b>		3.7%
<b>C</b>		3.2%
<b>D</b>		9.5%
<b>E</b>		66.7%

66.7% of users answered this question correctly

Session score = 54.5%

**Psoriasis: nail changes**

Psoriatic nail changes affect both fingers and toes and do not reflect the severity of psoriasis but there is an association with psoriatic arthropathy

Nail changes seen in psoriasis

- pitting
- onycholysis
- subungual hyperkeratosis
- loss of nail

**RCGP curriculum**

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**Rate question:**



**Question 12 of 40**

A 20-year-old woman presents after developing a white patch on her left foot:



Image used on license from [DermNet NZ](#)

Which one of the following statements regarding the diagnosis is correct?

- A. It is seen in around 0.1% of patients
- B. The average age of onset is 40-50 years
- ✓ C. Skin trauma may precipitate new skin lesions
- D. It is rare in Caucasian people
- E. The torso tends to be affected first

This is known as the Koebner phenomenon

**Vitiligo**

Vitiligo is an autoimmune condition which results in the loss of melanocytes and consequent depigmentation of the skin. It is thought to affect around 1% of the population and symptoms typically develop by the age of 20-30 years.

**Features**

- well demarcated patches of depigmented skin
- the peripheries tend to be most affected
- trauma may precipitate new lesions (Koebner phenomenon)

**Associated conditions**
**Question stats**

A	8.4%
B	5.7%
C	71%
D	6.1%
E	8.9%

71% of users answered this question correctly

Session score = 58.3%

**RCGP curriculum**

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**External links**

[DermNet NZ](#)

Vitiligo



- type 1 diabetes mellitus
- Addison's disease
- autoimmune thyroid disorders
- pernicious anaemia
- alopecia areata

#### Management

- sun block for affected areas of skin
- camouflage make-up
- topical corticosteroids may reverse the changes if applied early
- there may also be a role for topical tacrolimus and phototherapy, although caution needs to be exercised with light-skinned patients

#### **Rate question:**



### Question 13 of 40



A 67-year-old man is diagnosed with actinic keratoses on his right temple and prescribed fluorouracil cream. One week later he presents as the skin where he is applying treatment has become red and sore. On examination there is no sign of weeping or blistering. What is the most appropriate action?



- A. Continue fluorouracil cream + review in 1 week
- B. Complete a 'Yellow Card'
- C. Stop fluorouracil cream + prescribe topical hydrocortisone
- D. Switch to topical diclofenac
- E. Stop fluorouracil cream

This is a normal reaction to treatment. Fluorouracil should be continued for at least another week before starting topical steroids.

### Actinic keratoses

Actinic, or solar, keratoses (AK) is a common premalignant skin lesion that develops as a consequence of chronic sun exposure

#### Features

- small, crusty or scaly, lesions
- may be pink, red, brown or the same colour as the skin
- typically on sun-exposed areas e.g. temples of head
- multiple lesions may be present

#### Management options include

- prevention of further risk: e.g. sun avoidance, sun cream
- fluorouracil cream: typically a 2 to 3 week course. The skin will become red and inflamed - sometimes topical hydrocortisone is given following fluorouracil to help settle the inflammation
- topical diclofenac: may be used for mild AKs. Moderate efficacy but much fewer side-effects
- topical imiquimod: trials have shown good efficacy
- cryotherapy
- curettage and cautery

#### Rate question:

### Question stats

A	<div style="width: 50.8%;"></div>	50.8%
B	<div style="width: 1.4%;"></div>	1.4%
C	<div style="width: 32.4%;"></div>	32.4%
D	<div style="width: 9.1%;"></div>	9.1%
E	<div style="width: 6.3%;"></div>	6.3%

50.8% of users answered this question correctly

Session score = 61.5%

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### External links

[British Association of Dermatologists](#)

2007 Actinic keratoses guidelines

[DermNet NZ](#)

Actinic keratoses



**Question 14 of 40**


Which of the following conditions is most associated with onycholysis?



- A. Bullous pemphigoid
- B. Raynaud's disease
- C. Osteogenesis imperfecta
- D. Oesophageal cancer
- E. Scabies

Raynaud's disease causes onycholysis, as can any cause of impaired circulation

**Onycholysis**

Onycholysis describes the separation of the nail plate from the nail bed

Causes

- idiopathic
- trauma e.g. Excessive manicuring
- infection: especially fungal
- skin disease: psoriasis, dermatitis
- impaired peripheral circulation e.g. Raynaud's
- systemic disease: hyper- and hypothyroidism

**Rate question:**

**Question stats**

<b>A</b>		17%
<b>B</b>		41.5%
<b>C</b>		20.3%
<b>D</b>		15.8%
<b>E</b>		5.4%

41.5% of users answered this question correctly

Session score = 64.3%

**RCGP curriculum**

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**External links**

[DermIS.net](#)

Picture of onycholysis



# Question 15 of 40



A 69-year-old woman asks you to have a look at her feet. She lives out in Spain most of the year but comes back to the UK periodically to see her family.



Image used on license from [DermNet NZ](#)

She has similar changes on her forehead. The skin is not pruritic. What is the most likely diagnosis?

- A. Discoid lupus erythematosus
- ☒ B. **Photosensitive eczema**
- C. Porokeratosis
- ☒ D. **Actinic keratoses**
- E. Bowen's disease

Actinic keratoses may develop on any sun-exposed area, not just the forehead and temple. Bowen's disease tends to be isolated and well demarcated.

## Actinic keratoses

Actinic, or solar, keratoses (AK) is a common premalignant skin lesion that develops as a consequence of chronic sun exposure

### Features

- small, crusty or scaly, lesions
- may be pink, red, brown or the same colour as the skin
- typically on sun-exposed areas e.g. temples of head

### Question stats

A	2.8%
B	19.1%
C	6.3%
D	67.9%
E	3.9%

67.9% of users answered this question correctly

Session score = 60%

### RCGP curriculum

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### External links

[British Association of Dermatologists](#)

2007 Actinic keratoses guidelines

[DermNet NZ](#)

Actinic keratoses



multiple lesions may be present

Management options include

- prevention of further risk: e.g. sun avoidance, sun cream
- fluorouracil cream: typically a 2 to 3 week course. The skin will become red and inflamed - sometimes topical hydrocortisone is given following fluorouracil to help settle the inflammation
- topical diclofenac: may be used for mild AKs. Moderate efficacy but much fewer side-effects
- topical imiquimod: trials have shown good efficacy
- cryotherapy
- curettage and cautery

**Rate question:**

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**Question 2 of 231**


A 60-year-old woman presents a 'painful rash' on her left shin. This has been present for the past three days. On examination her pulse is 72 / min and temperature is 36.9°C:



Image used on license from [DermNet NZ](#)

**Question stats**

A	1.5%
B	71.2%
C	18.6%
D	7.1%
E	1.6%

71.2% of users answered this question correctly

Session score = 100%

**RCGP curriculum**

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What is the most appropriate management?



- A. Enquire about domestic violence
- B. Oral flucloxacillin
- C. Refer for low-molecular weight heparin
- D. Refer for intravenous antibiotics
- E. Topical clotrimazole

**Cellulitis: management**

The BNF recommends flucloxacillin as first-line treatment for mild/moderate cellulitis. Erythromycin is recommended in patients allergic to penicillin. Treatment failure is now commonly treated with oral clindamycin.



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## Question 20 of 231



A 62-year-old woman presents with painful 'bruises' on her shins and forearms.



Image used on license from [DermNet NZ](#)

She cannot remember knocking herself. What is the most likely diagnosis?

- A. Idiopathic thrombocytopenic purpura
- B. Erythema ab igne
- C. Thrombotic thrombocytopenic purpura
- ✓ D. Erythema nodosum
- E. Cellulitis

## Question stats

A	17.5%
B	4.4%
C	5.4%
D	71.9%
E	0.8%

71.9% of users answered this question correctly

Session score = 50%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Erythema nodosum

## Erythema nodosum

Overview



- inflammation of subcutaneous fat
- typically causes tender, erythematous, nodular lesions
- usually occurs over shins, may also occur elsewhere (e.g. forearms, thighs)
- usually resolves within 6 weeks
- lesions heal without scarring

#### Causes

- infection: streptococci, TB, brucellosis
- systemic disease: sarcoidosis, inflammatory bowel disease, Behcet's
- malignancy/lymphoma
- drugs: penicillins, sulphonamides, combined oral contraceptive pill
- pregnancy

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# Question 16 of 40



A woman who is 24 weeks pregnant presents with a rash:



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What is the most likely diagnosis?

- A. Pityriasis rosea
- B. Pompholyx
- C. Primary herpes simplex infection
- ☒ D. Polymorphic eruption of pregnancy
- ☐ E. Pemphigoid gestationis

The blistering lesions are clearly visible on this image.

## Skin disorders associated with pregnancy

### Polymorphic eruption of pregnancy

- pruritic condition associated with last trimester
- lesions often first appear in abdominal striae
- management depends on severity: emollients, mild potency topical steroids and oral steroids may be used

### Pemphigoid gestationis

- pruritic blistering lesions
- often develop in peri-umbilical region, later spreading to the trunk, back,

### Question stats

A	1.8%
B	2.2%
C	3.2%
D	21.9%
E	70.9%

70.9% of users answered this question correctly

Session score = 56.3%

### RCGP curriculum

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### External links

[DermNet NZ](#)

Polymorphic eruption of pregnancy

[DermNet NZ](#)

Pemphigoid gestationis



buttocks and arms

- usually presents 2nd or 3rd trimester and is rarely seen in the first pregnancy
- oral corticosteroids are usually required

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### Question 17 of 40



Which one of the following is least recognised as a cause of erythroderma in the UK?

- X** A. Lymphoma
- B. Drug eruption
- ✓** C. Lichen planus
- D. Psoriasis
- E. Eczema

#### Question stats

A		26.7%
B		3.6%
C		55.8%
D		5.5%
E		8.4%

55.8% of users answered this question correctly

Session score = 52.9%

### Erythroderma

Erythroderma is a term used when more than 95% of the skin is involved in a rash of any kind

Causes of erythroderma

- eczema
- psoriasis
- drugs e.g. gold
- lymphoma, leukaemia
- idiopathic

Erythrodermic psoriasis

- may result from progression of chronic disease to an exfoliative phase with plaques covering most of the body. Associated with mild systemic upset
- more serious form is an acute deterioration. This may be triggered by a variety of factors such as withdrawal of systemic steroids. Patients need to be admitted to hospital for management

**Rate question:**

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# Question 18 of 40



Which one of the following conditions is least associated with pruritus?

- ✓ A. Pemphigus vulgaris
- ✗ B. Iron-deficiency anaemia
- C. Polycythaemia
- D. Chronic renal failure
- E. Scabies

Pemphigus vulgaris is an autoimmune bullous disease of the skin. It is not commonly associated with pruritus

## Pruritus

The table below lists the main characteristics of the most important causes of pruritus

<b>Liver disease</b>	History of alcohol excess Stigmata of chronic liver disease: spider naevi, bruising, palmar erythema, gynaecomastia etc Evidence of decompensation: ascites, jaundice, encephalopathy
<b>Iron deficiency anaemia</b>	Pallor Other signs: koilonychia, atrophic glossitis, post-cricoid webs, angular stomatitis
<b>Polycythaemia</b>	Pruritus particularly after warm bath 'Ruddy complexion' Gout Peptic ulcer disease
<b>Chronic kidney disease</b>	Lethargy & pallor Oedema & weight gain Hypertension
<b>Lymphoma</b>	Night sweats Lymphadenopathy Splenomegaly, hepatomegaly Fatigue

Other causes:

- hyper- and hypothyroidism
- diabetes
- pregnancy
- 'senile' pruritus
- urticaria
- skin disorders: eczema, scabies, psoriasis, pityriasis rosea

## Question stats

A	<div></div>	56.1%
B	<div></div>	28.7%
C	<div></div>	12.7%
D	<div></div>	2.3%
E	<div></div>	0.2%

56.1% of users answered this question correctly

Session score = 50%

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Rate question:

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# Question 19 of 40



A 43-year-old man presents to his GP due to skin lesions on the back of his hands and the extensor aspects of his arms. On examination there are a number of smooth, firm, papules as shown below:



What is the most likely diagnosis?

- A. Lupus vulgaris
- ☒ B. Livedo reticularis
- C. Guttate psoriasis
- ☒ D. Granuloma annulare
- E. Pyoderma gangrenosum

## Question stats

A	18.2%
B	17.2%
C	19.5%
D	43.5%
E	1.5%

43.5% of users answered this question correctly

Session score = 47.4%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Picture of granuloma annulare

## Granuloma annulare

### Basics

- papular lesions that are often slightly hyperpigmented and depressed centrally
- typically occur on the dorsal surfaces of the hands and feet, and on the extensor aspects of the arms and legs

A number of associations have been proposed to conditions such as diabetes mellitus but there is only weak evidence for this



Rate question:

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# Question 20 of 40



Which of the following skin disorders is most associated with antiphospholipid syndrome?



- A. Lichen sclerosis
- B. Lichen planus
- C. Livedo reticularis
- D. Lupus vulgaris
- E. Psoriasis

Antiphospholipid syndrome: arterial/venous thrombosis, miscarriage, livedo reticularis

Livedo reticularis is the skin rash most commonly associated with antiphospholipid syndrome. Lupus vulgaris is seen in tuberculosis

## Antiphospholipid syndrome

Antiphospholipid syndrome is an acquired disorder characterised by a predisposition to both venous and arterial thromboses, recurrent fetal loss and thrombocytopenia. It may occur as a primary disorder or secondary to other conditions, most commonly systemic lupus erythematosus (SLE)

A key point for the exam is to appreciate that antiphospholipid syndrome causes a paradoxical rise in the APTT. This is due to an ex-vivo reaction of the lupus anticoagulant autoantibodies with phospholipids involved in the coagulation cascade

### Features

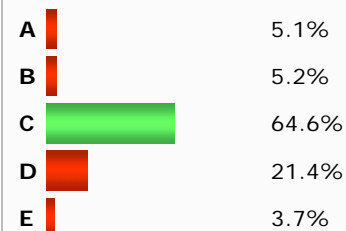
- venous/arterial thrombosis
- recurrent fetal loss
- livedo reticularis
- thrombocytopenia
- prolonged APTT
- other features: pre-eclampsia, pulmonary hypertension

### Associations other than SLE

- other autoimmune disorders
- lymphoproliferative disorders
- phenothiazines (rare)

Management - based on BCSH guidelines

## Question stats



64.6% of users answered this question correctly

Session score = 45%

## RCGP curriculum

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## External links

[DermIS.net](#)

Picture of livedo reticularis

[BCSH](#)

Antiphospholipid syndrome guidelines



- initial venous thromboembolic events: evidence currently supports use of warfarin with a target INR of 2-3 for 6 months
- recurrent venous thromboembolic events: lifelong warfarin; if occurred whilst taking warfarin then increase target INR to 3-4
- arterial thrombosis should be treated with lifelong warfarin with target INR 2-3

**Rate question:**

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# Question 21 of 40



A 34-year-old patient who is known to have psoriasis presents with erythematous skin in the groin and genital area. He also has erythematous skin in the axilla. In the past he has expressed a dislike of messy or cumbersome creams. What is the most appropriate treatment?



- A. Topical steroid
- B. Topical dithranol
- C. Topical clotrimazole
- D. Coal tar



- E. Topical calcipotriol

Flexural psoriasis - topical steroid

This patient has flexural psoriasis which responds well to topical steroids. Topical calcipotriol is usually irritant in flexures. Mild tar preparations are an option but may be messy and cumbersome.

## Psoriasis: management

SIGN released guidelines in 2010 on the management of psoriasis and psoriatic arthropathy. Please see the link for more details.

### Chronic plaque psoriasis

- regular emollients may help to reduce scale loss and reduce pruritus
- for acute control SIGN recommend: 'Short term intermittent use of a potent topical corticosteroid or a combined potent corticosteroid plus calcipotriol

ointment is recommended to gain rapid improvement in plaque psoriasis.'

- 'For long term topical treatment of plaque psoriasis a vitamin D analogue (e.g. Calcipotriol) is recommended.'
- 'If a vitamin D analogue is ineffective or not tolerated then consider coal tar (solution, cream or lotion), tazarotene gel, or short contact dithranol (30 minute exposure in patients with a small number of relatively large plaques of psoriasis).

### Steroids in psoriasis

- topical steroids are commonly used in flexural psoriasis and there is also a role for mild steroids in facial psoriasis. If steroids are ineffective for these conditions vitamin D analogues or tacrolimus ointment should be used second line
- SIGN caution against the long term use of potent or very potent topical steroids due to the risk of side-effects

## Question stats

A	<div style="width: 46.6%;"></div>	46.6%
B	<div style="width: 7.6%;"></div>	7.6%
C	<div style="width: 15.4%;"></div>	15.4%
D	<div style="width: 1.9%;"></div>	1.9%
E	<div style="width: 28.5%;"></div>	28.5%

46.6% of users answered this question correctly

Session score = 42.9%

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[SIGN](#)

2010 Psoriasis guidelines



## Scalp psoriasis

- for short term control SIGN recommend either the use of potent topical corticosteroids or a combination of a potent corticosteroid and a vitamin D

## analogue

- 'For patients with thick scaling of the scalp, initial treatment with overnight application of salicylic acid, tar preparations, or oil preparations (eg olive oil, coconut oil) to remove thick scale is recommended.

## Secondary care management

### Phototherapy

- narrow band ultraviolet B light (311-313nm) is now the treatment of choice
- photochemotherapy is also used - psoralen + ultraviolet A light (PUVA)
- adverse effects: skin ageing, squamous cell cancer (not melanoma)

### Systemic therapy

- methotrexate: useful if associated joint disease
- ciclosporin
- systemic retinoids
- biological agents: infliximab, etanercept and adalimumab
- ustekinumab (IL-12 and IL-23 blocker) is showing promise in early trials

### Mechanism of action of commonly used drugs:

- coal tar: probably inhibit DNA synthesis
- calcipotriol: vitamin D analogue which reduces epidermal proliferation and restores a normal horny layer
- dithranol: inhibits DNA synthesis, wash off after 30 mins, SE: burning, staining

### Rate question:



# Question 22 of 40



A 40-year-old man is suspected of having tinea capitis. Scalp scrapings and a plucked hair are sent off and show a *Trichophyton tonsurans* infection. What is the most suitable management?



- Oral terbinafine with topical ketoconazole shampoo for the first 2 weeks
- Oral itraconazole with topical ketoconazole shampoo for the first 2 weeks
- Refer to dermatology
- Topical ketoconazole shampoo
- Oral fluconazole



## Question stats

A		38.7%
B		19.9%
C		1.7%
D		37.4%
E		2.4%

38.7% of users answered this question correctly

Session score = 40.9%

## Tinea

Tinea is a term given to dermatophyte fungal infections. Three main types of infection are described depending on what part of the body is infected

- tinea capitis - scalp
- tinea corporis - trunk, legs or arms
- tinea pedis - feet

### Tinea capitis (scalp ringworm)

- a cause of scarring alopecia mainly seen in children
- if untreated a raised, pustular, spongy/boggy mass called a kerion may form
- most common cause is *Trichophyton tonsurans* in the UK and the USA
- may also be caused by *Microsporum canis* acquired from cats or dogs
- diagnosis: lesions due to *Microsporum canis* green fluorescence under Wood's lamp\*. However the most useful investigation is scalp scrapings
- management (based on CKS guidelines): oral antifungals: terbinafine for *Trichophyton tonsurans* infections and griseofulvin for *Microsporum* infections. Topical ketoconazole shampoo should be given for the first two weeks to reduce transmission

### Tinea corporis

- causes include *Trichophyton rubrum* and *Trichophyton verrucosum* (e.g. From contact with cattle)
- well-defined annular, erythematous lesions with pustules and papules
- may be treated with oral fluconazole

### Tinea pedis (athlete's foot)

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## External links

[Clinical Knowledge Summaries](#)

Fungal skin infection - scalp



- characterised by itchy, peeling skin between the toes
- common in adolescence

\*lesions due to Trichophyton species do not readily fluoresce under Wood's lamp

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### Question 23 of 40



A man presents with an area of dermatitis on his left wrist. He thinks he may be allergic to nickel. Which one of the following is the best test to investigate this possibility?



- A. Skin patch test
- B. Radioallergosorbent test (RAST)
- C. Nickel IgG levels
- D. Skin prick test
- E. Nickel IgM levels

#### Question stats

A	<div style="width: 85.8%;"></div>	85.8%
B	<div style="width: 3.7%;"></div>	3.7%
C	<div style="width: 0.9%;"></div>	0.9%
D	<div style="width: 8.8%;"></div>	8.8%
E	<div style="width: 0.8%;"></div>	0.8%

85.8% of users answered this question correctly

Session score = 43.5%

### Allergy tests

<b>Skin prick test</b>	<p>Most commonly used test as easy to perform and inexpensive. Drops of diluted allergen are placed on the skin after which the skin is pierced using a needle. A large number of allergens can be tested in one session. Normally includes a histamine (positive) and sterile water (negative) control. A wheal will typically develop if a patient has an allergy. Can be interpreted after 15 minutes</p> <p>Useful for food allergies and also pollen</p>
<b>Radioallergosorbent test (RAST)</b>	<p>Determines the amount of IgE that reacts specifically with suspected or known allergens, for example IgE to egg protein. Results are given in grades from 0 (negative) to 6 (strongly positive)</p> <p>Useful for food allergies, inhaled allergens (e.g. Pollen) and wasp/bee venom</p> <p>Blood tests may be used when skin prick tests are not suitable, for example if there is extensive eczema or if the patient is taking antihistamines</p>
<b>Skin patch testing</b>	<p>Useful for contact dermatitis. Around 30-40 allergens are placed on the back. Irritants may also be tested for. The patches are removed 48 hours later with the results being read by a dermatologist after a further 48 hours</p>

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Rate question:







**Question 24 of 40**


This patient is known to suffer from Raynaud's phenomenon:



Image used on license from [DermNet NZ](#)

What does the lesion on her thumb most likely represent?

- A. Arterial ulcer
- B. Gouty tophus
- ☒ C. Calcium deposit
- ☐ D. Orf
- E. Xanthomata

This lesion represents calcinosis.

**Systemic sclerosis**

Systemic sclerosis is a condition of unknown aetiology characterised by hardened, sclerotic skin and other connective tissues. It is four times more common in females

There are three patterns of disease:

Limited cutaneous systemic sclerosis

- Raynaud's may be first sign
- scleroderma affects face and distal limbs predominately
- associated with anti-centromere antibodies

**Question stats**

A	<div style="width: 45.7%;"></div>	45.7%
B	<div style="width: 5.8%;"></div>	5.8%
C	<div style="width: 37.3%;"></div>	37.3%
D	<div style="width: 5.7%;"></div>	5.7%
E	<div style="width: 5.5%;"></div>	5.5%

37.3% of users answered this question correctly

Session score = 41.7%

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a subtype of limited systemic sclerosis is CREST syndrome: Calcinosis, Raynaud's phenomenon, oEsophageal dysmotility, Sclerodactyly, Telangiectasia

#### Diffuse cutaneous systemic sclerosis

- scleroderma affects trunk and proximal limbs predominately
- associated with scl-70 antibodies
- hypertension, lung fibrosis and renal involvement seen
- poor prognosis

#### Scleroderma (without internal organ involvement)

- tightening and fibrosis of skin
- may be manifest as plaques (morphoea) or linear

#### Antibodies

- ANA positive in 90%
- RF positive in 30%
- anti-scl-70 antibodies associated with diffuse cutaneous systemic sclerosis
- anti-centromere antibodies associated with limited cutaneous systemic sclerosis

**Rate question:**



**Question 25 of 40**


A 24-year-old female with a history of anorexia nervosa presents with red crusted lesions around the corner of her mouth and below her lower lip. What is she most likely to be deficient in?



- A. **Zinc**
- B. Tocopherol
- C. Pantothenic acid
- D. Thiamine
- E. Magnesium

Vitamin B2 (riboflavin) deficiency may also cause angular cheilosis.

**Zinc deficiency**
**Features**

- perioral dermatitis: red, crusted lesions
- acrodermatitis
- alopecia
- short stature
- hypogonadism
- hepatosplenomegaly
- geophagia (ingesting clay/soil)
- cognitive impairment

**Rate question:**
**Question stats**

<b>A</b>	<div style="width: 58.3%;"></div>	58.3%
<b>B</b>	<div style="width: 3.4%;"></div>	3.4%
<b>C</b>	<div style="width: 6%;"></div>	6%
<b>D</b>	<div style="width: 26.3%;"></div>	26.3%
<b>E</b>	<div style="width: 6.1%;"></div>	6.1%

58.3% of users answered this question correctly

Session score = 44%

**RCGP curriculum**

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# Question 21 of 231



A 55-year-old man asks you to have a look at some 'red spots' on his torso. They have been present for about the past six months.



Image used on license from [DermNet NZ](#)



What is the most likely diagnosis?

- A. Kaposi sarcoma
- B. Blue rubber bleb naevus syndrome
- C. Thrombocytopaenia
- D. Malignant melanoma
- ✓ E. **Cherry haemangioma**

## Question stats

A	3.9%
B	3.6%
C	0.5%
D	1.5%
E	90.5%

90.5% of users answered this question correctly

Session score = 52.4%

## RCGP curriculum

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## Cherry haemangioma

Cherry haemangiomas (Campbell de Morgan spots) are benign skin lesions which contain an abnormal proliferation of capillaries. They are more common with advancing age and affect men and women equally.

### Features

- erythematous, papular lesions
- typically 1-3 mm in size
- non-blanching
- not found on the mucous membranes



As they are benign no treatment is usually required.

**Rate question:**

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**Question 26 of 40**


Which one of the following is least associated with acanthosis nigricans?

- A. Oral contraceptive pill
- B. Obesity
- C. Polycystic ovarian syndrome
- D. Insulin-resistant diabetes mellitus
- E. **Hyperthyroidism**


**Question stats**

<b>A</b>		8.9%
<b>B</b>		8.1%
<b>C</b>		1.4%
<b>D</b>		3.2%
<b>E</b>		78.4%

78.4% of users answered this question correctly

Session score = 46.2%

**Acanthosis nigricans**

Describes symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin

**Causes**

- gastrointestinal cancer
- insulin-resistant diabetes mellitus
- obesity
- polycystic ovarian syndrome
- acromegaly
- Cushing's disease
- hypothyroidism
- familial
- Prader-Willi syndrome
- drugs: oral contraceptive pill, nicotinic acid

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**External links**

[DermNet NZ](#)

Acanthosis nigricans

**Rate question:**



# Question 27 of 40



Which one of the following types of rash is most often seen in early Lyme disease?

- A. Erythema nodosum
- B. Psoriasis
- C. Erythema marginatum
- D. Erythema ab igne
- E. Erythema chronicum migrans



## Question stats

A	5.2%
B	0.2%
C	34.9%
D	3.3%
E	56.4%

56.4% of users answered this question correctly

Session score = 44.4%

Other skin rashes associated with Lyme disease include acrodermatitis chronica atrophicans and Borrelia lymphocytosis. Erythema marginatum is seen in rheumatic fever whilst erythema ab igne refers to skin that is reddened secondary to long-term exposure to infrared radiation

## Lyme disease

Lyme disease is caused by the spirochaete *Borrelia burgdorferi* and is spread by ticks

### Features

- early: erythema chronicum migrans + systemic features (fever, arthralgia)
- CVS: heart block, myocarditis
- neuro: cranial nerve palsies, meningitis

### Investigation

- serology: antibodies to *Borrelia burgdorferi*

### Management

- doxycycline if early disease
- ceftriaxone if disseminated disease
- Jarisch-Herxheimer reaction is sometimes seen after initiating therapy: fever, rash, tachycardia after first dose of antibiotic (more commonly seen in syphilis, another spirochaetal disease)

### Rate question:

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# Question 28 of 40



A 43-year-old man is admitted to the Emergency Department with a rash and feeling generally unwell. He is known to have epilepsy and his medication was recently changed to phenytoin three weeks ago. Around one week ago he started to develop mouth ulcers associated with malaise and a cough. Two days ago he started to develop a widespread red rash which has now coalesced to form large fluid-filled blisters, covering around 30% of his body area. The lesions separate when slight pressure is applied. On examination his temperature is 38.3°C and pulse 126 / min. Blood results show:

Na <sup>+</sup>	144 mmol/l
K <sup>+</sup>	4.2 mmol/l
Bicarbonate	19 mmol/l
Urea	13.4 mmol/l
Creatinine	121 µmol/l

What is the most likely diagnosis?

- A. Phenytoin-induced neutropaenia
- B. Drug-induced lupus
- C. Kawasaki disease
- ☒ D. Toxic epidermal necrolysis
- ☐ E. Staphylococcal Scalded Skin syndrome

## Toxic epidermal necrolysis

Toxic epidermal necrolysis (TEN) is a potentially life-threatening skin disorder that is most commonly seen secondary to a drug reaction. In this condition the skin develops a scalded appearance over an extensive area. Some authors consider TEN to be the severe end of a spectrum of skin disorders which includes erythema multiforme and Stevens-Johnson syndrome

### Features

- systemically unwell e.g. pyrexia, tachycardic
- positive Nikolsky's sign: the epidermis separates with mild lateral pressure

### Drugs known to induce TEN

- phenytoin
- sulphonamides
- allopurinol

### Question stats

A	3.8%
B	7.7%
C	2.3%
D	76.2%
E	10%

76.2% of users answered this question correctly

Session score = 42.9%

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### External links

[DermNet NZ](#)

Picture of TEN



- penicillins
- carbamazepine
- NSAIDs

#### Management

- stop precipitating factor
- supportive care, often in intensive care unit
- intravenous immunoglobulin has been shown to be effective and is now commonly used first-line
- other treatment options include: immunosuppressive agents (ciclosporin and cyclophosphamide), plasmapheresis

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# Question 29 of 40



You review a 31-year-old woman who has had Crohn's disease for the past 12 years. She is currently on infliximab therapy.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?



- A. **Pyoderma gangrenosum**
- B. Acute febrile neutrophilic dermatosis
- C. Squamous cell carcinoma
- D. Pyogenic granuloma
- E. Behcet's disease

## Question stats

A	<div style="width: 65.1%;"></div>	65.1%
B	<div style="width: 13%;"></div>	13%
C	<div style="width: 1.2%;"></div>	1.2%
D	<div style="width: 15.8%;"></div>	15.8%
E	<div style="width: 4.9%;"></div>	4.9%

65.1% of users answered this question correctly

Session score = 44.8%

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## External links

[DermNet NZ](#)

Picture of pyoderma gangrenosum

[DermNet NZ](#)

Stoma skin problems

## Pyoderma gangrenosum

### Features

- typically on the lower limbs
- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- may be accompanied systemic symptoms e.g. Fever, myalgia

### Causes\*

- idiopathic in 50%



- inflammatory bowel disease: ulcerative colitis, Crohn's
- rheumatoid arthritis, SLE
- myeloproliferative disorders
- lymphoma, myeloid leukaemias
- monoclonal gammopathy (IgA)
- primary biliary cirrhosis

#### Management

- the potential for rapid progression is high in most patients and most doctors advocate oral steroids as first-line treatment
- other immunosuppressive therapy, for example ciclosporin and infliximab, have a role in difficult cases

\*note whilst pyoderma gangrenosum can occur in diabetes mellitus it is rare and is generally not included in a differential of potential causes

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# Question 30 of 40



A 31-year-old man develops an erythematous rash overnight:



Which one of the following conditions is most strongly associated with this type of rash?

- ☒ A. Crohn's disease
- ☐ B. Tuberculosis
- ☐ C. Sarcoidosis
- ☒ D. Herpes simplex virus
- ☐ E. Staphylococcal infections

This is difficult as there are many possible triggers for erythema multiforme. However, studies suggest that HSV is the trigger in over 50% of cases. Sarcoidosis is more strongly associated with erythema nodosum.

## Erythema multiforme

### Features

- target lesions
- initially seen on the back of the hands / feet before spreading to the torso
- upper limbs are more commonly affected than the lower limbs
- pruritus is occasionally seen and is usually mild

If symptoms are severe and involve blistering and mucosal involvement the term

### Question stats

A	9.7%
B	2.7%
C	12.1%
D	32.9%
E	42.6%

32.9% of users answered this question correctly

Session score = 43.3%

### RCGP curriculum

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### External links

[DermNet NZ](#)

Erythema multiforme



Stevens-Johnson syndrome is used.

#### Causes

- viruses: herpes simplex virus (the most common cause), Orf\*
- idiopathic
- bacteria: *Mycoplasma*, *Streptococcus*
- drugs: penicillin, sulphonamides, carbamazepine, allopurinol, NSAIDs, oral contraceptive pill, nevirapine
- connective tissue disease e.g. Systemic lupus erythematosus
- sarcoidosis
- malignancy

\*Orf is a skin disease of sheep and goats caused by a parapox virus

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### Question 31 of 40

A 25-year-old woman asks you to look at her tongue. It has had this appearance for 'a few months' and she is asymptomatic.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Oral lichen planus
- B. Iron-deficiency anaemia
- C. Vitamin C deficiency
- ☒ D. Geographic tongue
- E. Oral leukoplakia

#### Question stats

A	6.7%
B	1.3%
C	0.6%
D	86.9%
E	4.5%

86.9% of users answered this question correctly

Session score = 45.2%

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### Geographic tongue

Geographic tongue is a benign, chronic condition of unknown cause. It is present in around 1-3% of the population and is more common in females.

#### Features

- erythematous areas with a white-grey border (the irregular, smooth red areas are said to look like the outline of a map)
- some patients report burning after eating certain food

#### Management



- reassurance about benign nature

**Rate question:**



### Question 32 of 40



A 19-year-old female with eczema asks for advice about the use of topical steroids. How many finger tip units (FTU) should be used for an entire hand and arm?

- A. 1
- B. 2
- C. 4
- D. 6
- E. 8



#### Question stats

A	3.8%
B	18.4%
C	59.6%
D	14%
E	4.2%

59.6% of users answered this question correctly

Session score = 46.9%

### Eczema: topical steroids

Use weakest steroid cream which controls patients symptoms

The table below shows topical steroids by potency

Mild	Moderate	Potent	Very potent
Hydrocortisone 0.5-2.5%	Betamethasone valerate 0.025% (Betnovate RD)  Clobetasone butyrate 0.05% (Eumovate)	Fluticasone propionate 0.05% (Cutivate)  Betamethasone valerate 0.1% (Betnovate)	Clobetasol propionate 0.05% (Dermovate)

Finger tip rule

- 1 finger tip unit (FTU) = 0.5 g, sufficient to treat a skin area about twice that of the flat of an adult hand

Topical steroid doses for eczema in adults

Area of skin	Fingertip units per dose
Hand and fingers (front and back)	1.0
A foot (all over)	2.0
Front of chest and abdomen	7.0
Back and buttocks	7.0
Face and neck	2.5
An entire arm and hand	4.0

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#### External links

[British Association of Dermatologists](#)

Atopic eczema guidelines



An entire leg and foot	8.0
------------------------	-----

Rate question:



**Question 33 of 40**


Which one of the following skin disorders is not commonly seen with systemic lupus erythematosus?



- A. **Keratoderma blenorrhagica**
- B. Alopecia
- C. Livedo reticularis
- D. Photosensitivity
- E. Butterfly rash

Keratoderma blenorrhagica describes waxy yellow papules on the palms and soles. It is seen in Reiter's syndrome

**Skin disorders associated with SLE**

Skin manifestations of systemic lupus erythematosus

- photosensitive 'butterfly' rash
- discoid lupus
- alopecia
- livedo reticularis: net-like rash

**Rate question:**

**Question stats**

<b>A</b>		64.6%
<b>B</b>		14.3%
<b>C</b>		15.7%
<b>D</b>		1.5%
<b>E</b>		3.9%

64.6% of users answered this question correctly

Session score = 48.5%

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**External links**

[Derm Net NZ](#)

Picture of butterfly rash

[Derm Net NZ](#)

Picture of discoid lupus

[DermIS.net](#)

Picture of livedo reticularis



## Questions 38 to 40 of 40



**Theme:** Causes of pruritus

- A** Liver disease
- B** Hypothyroidism
- C** Diabetes mellitus
- D** Menopause-related pruritus
- E** Chronic kidney disease
- F** Polycythaemia
- G** Iron deficiency anaemia
- H** Tuberculosis
- I** Scabies
- J** Lymphoma

### Question stats

Average score for registered users:

<b>38</b>	<div style="width: 64.7%;"></div>	64.7%
<b>39</b>	<div style="width: 84.1%;"></div>	84.1%
<b>40</b>	<div style="width: 63.7%;"></div>	63.7%

Session score = 42.5%

For each of the following scenarios select the most likely diagnosis:

- 38.** A 61-year-old man presents with pruritus. He has had recurrent episodes of painful swelling in the MTP joints and a history of peptic ulcer disease. On examination he has a 'ruddy' complexion



Liver disease

The correct answer is Polycythaemia

- 39.** A 41-year-old woman requests a repeat prescription for citalopram. She also mentions she is constantly itchy and bruises easily. On examination she has reddened palms and a distended abdomen



Hypothyroidism

The correct answer is Liver disease

- 40.** A 37-year-old woman presents with itch and lethargy. She is having difficulty sleeping due to night sweats and is wondering if she may be 'going through the change'.



Menopause-related pruritus

The correct answer is Lymphoma

She is quite young to be going through the menopause. Whilst some menopausal women report itch it is not common



Pruritus

The table below lists the main characteristics of the most important causes of pruritus

Liver disease	History of alcohol excess Stigmata of chronic liver disease: spider naevi, bruising, palmar erythema, gynaecomastia etc Evidence of decompensation: ascites, jaundice, encephalopathy
Iron deficiency anaemia	Pallor Other signs: koilonychia, atrophic glossitis, post-cricoid webs, angular stomatitis
Polycythaemia	Pruritus particularly after warm bath 'Ruddy complexion' Gout Peptic ulcer disease
Chronic kidney disease	Lethargy & pallor Oedema & weight gain Hypertension
Lymphoma	Night sweats Lymphadenopathy Splenomegaly, hepatomegaly Fatigue

Other causes:

- hyper- and hypothyroidism
- diabetes
- pregnancy
- 'senile' pruritus
- urticaria
- skin disorders: eczema, scabies, psoriasis, pityriasis rosea

Rate question:



**Question 34 of 40**

Please look at the skin lesion shown below:



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Infected chalazion
- B. Actinic keratosis
- C. Indurated dacryocystitis
- D. Keratoacanthoma
- ✓ E. Basal cell carcinoma

**Question stats**

A	0.7%
B	0.4%
C	3.9%
D	4.1%
E	91%

91% of users answered this question correctly

Session score = 50%

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**External links**

[DermNet NZ](#)

Basal cell carcinoma

**Basal cell carcinoma**

Basal cell carcinoma (BCC) is one of the three main types of skin cancer. Lesions are also known as rodent ulcers and are characterised by slow-growth and local invasion. Metastases are extremely rare. BCC is the most common type of cancer in the Western world.

**Features**

- many types of BCC are described. The most common type is nodular BCC, which is described here
- sun-exposed sites, especially the head and neck account for the majority of lesions
- initially a pearly, flesh-coloured papule with telangiectasia



may later ulcerate leaving a central 'crater'

Management options:

- surgical removal
- curettage
- cryotherapy
- topical cream: imiquimod, fluorouracil
- radiotherapy

**Rate question:**

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# Question 22 of 231



You are asked to review the heel of an 86-year-old lady by the district nurses. They are concerned she may be developing a pressure ulcer. On examination there is a 3 cm area of erythema on the right heel with a small area of partial thickness skin loss involving the epidermis in the centre. How would you grade the pressure ulcer?



A. Grade 1



B. Grade 2

C. Grade 3

D. Grade 4

E. Grade 5

## Question stats

A	5.2%
B	66%
C	26.2%
D	2.5%
E	0.1%

66% of users answered this question correctly

Session score = 50%

## Pressure ulcers

The following is based on a 2009 NHS Best Practice Statement. Please see the link for further details. Some selected points are listed below. NICE also published guidelines in 2005.

Pressure ulcers develop in patients who are unable to move parts of their body due to illness, paralysis or advancing age. They typically develop over bony prominences such as the sacrum or heel. The following factors predispose to the development of pressure ulcers:

- malnourishment
- incontinence
- lack of mobility
- pain (leads to a reduction in mobility)

Grading of pressure ulcers - the following is taken from the European Pressure Ulcer Advisory Panel classification system.

<b>Grade 1</b>	Non-blanchable erythema of intact skin. Discolouration of the skin, warmth, oedema, induration or hardness may also be used as indicators, particularly on individuals with darker skin
<b>Grade 2</b>	Partial thickness skin loss involving epidermis or dermis, or both. The ulcer is superficial and presents clinically as an abrasion or blister
<b>Grade 3</b>	Full thickness skin loss involving damage to or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia.
<b>Grade 4</b>	Extensive destruction, tissue necrosis, or damage to muscle, bone or supporting structures with or without full thickness skin loss

## RCGP curriculum

9 - Care of Older Adults

[Curriculum statement](#)

## External links

[NHS](#)

Prevention and management of pressure ulcers

[NICE](#)

The prevention and treatment of pressure ulcers

Management



- a moist wound environment encourages ulcer healing. Hydrocolloid dressings and hydrogels may help facilitate this. The use of soap should be discouraged to avoid drying the wound
- wound swabs should not be done routinely as the vast majority of pressure ulcers are colonised with bacteria. The decision to use systemic antibiotics should be taken on a clinical basis (e.g. Evidence of surrounding cellulitis)
- consider referral to the tissue viability nurse
- surgical debridement may be beneficial for selected wounds

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# Question 35 of 40



Which one of the following features is least associated with acne rosacea?

- ✓ A. Pruritus
- B. Blepharitis
- C. Flushing
- ✗ D. Pustules
- E. Rhinophyma

Pruritus is not a common feature of acne rosacea.

## Acne rosacea

Acne rosacea is a chronic skin disease of unknown aetiology

### Features

- typically affects nose, cheeks and forehead
- flushing is often first symptom
- telangiectasia are common
- later develops into persistent erythema with papules and pustules
- rhinophyma
- ocular involvement: blepharitis

### Management

- topical metronidazole may be used for mild symptoms (i.e. Limited number of papules and pustules, no plaques)
- more severe disease is treated with systemic antibiotics e.g. Oxytetracycline
- recommend daily application of a high-factor sunscreen
- camouflage creams may help conceal redness
- laser therapy may be appropriate for patients with prominent telangiectasia

Rate question:

### Question stats

A	<div></div>	55.7%
B	<div></div>	25.5%
C	<div></div>	3.5%
D	<div></div>	9.2%
E	<div></div>	6%

55.7% of users answered this question correctly

Session score = 48.6%

### RCGP curriculum

15.10 - Skin Problems

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### External links

[Clinical Knowledge Summaries](#)

Rosacea guidelines



# Question 36 of 40



This 37-year-old woman complains of red itchy skin on her face:



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Acne vulgaris
- B. Acne rosacea
- ☒ C. Seborrhoeic dermatitis
- ☐ D. Erythrasma
- E. Systemic lupus erythematosus

The nasolabial fold dermatitis is typical in this image.

## Seborrhoeic dermatitis in adults

Seborrhoeic dermatitis in adults is a chronic dermatitis thought to be caused by an inflammatory reaction related to a proliferation of a normal skin inhabitant, a fungus called *Malassezia furfur* (formerly known as *Pityrosporum ovale*). It is common, affecting around 2% of the general population

### Features

- eczematous lesions on the sebum-rich areas: scalp (may cause dandruff), periorbital, auricular and nasolabial folds
- otitis externa and blepharitis may develop

### Question stats

A	0.8%
B	21%
C	43.1%
D	28.1%
E	7%

43.1% of users answered this question correctly

Session score = 47.2%

### RCGP curriculum

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### External links

[DermNet NZ](#)

Overview and pictures of seborrhoeic dermatitis

[Clinical Knowledge Summaries](#)

Seborrhoeic dermatitis guidelines



Associated conditions include

- HIV
- Parkinson's disease

Scalp disease management

- over the counter preparations containing zinc pyrithione ('Head & Shoulders') and tar ('Neutrogena T/Gel') are first-line
- the preferred second-line agent is ketoconazole
- selenium sulphide and topical corticosteroid may also be useful

Face and body management

- topical antifungals: e.g. Ketoconazole
- topical steroids: best used for short periods
- difficult to treat - recurrences are common

**Rate question:**

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**Question 37 of 40**


Please look at the image below:



Image used on license from [DermNet NZ](#)

The lesion has been getting bigger for the past few weeks. There is no history of trauma. What is the most likely diagnosis?

- ✗ A. Basal cell carcinoma  
✓ B. Seborrhoeic keratosis  
✓ C. Bowen's disease  
D. Tinea corporis  
E. Nummular eczema

**Question stats**

A	7.2%
B	3.9%
C	58.9%
D	6%
E	24%

58.9% of users answered this question correctly

Session score = 45.9%

**RCGP curriculum**

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Bowen's disease

**Bowen's disease**

Bowen's disease is a type of intraepidermal squamous cell carcinoma. More common in elderly females. There is around a 3% chance of developing invasive skin cancer

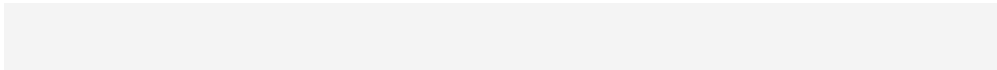
Features

- red, scaly patches

- often occur on the lower limbs

**Rate question:**







## Question 23 of 231





The patient below is being treated for epilepsy:



Image used on license from [DermNet NZ](#) and with the kind permission of Prof Raimo Suhonen

What is the most likely underlying diagnosis?

- A. HIV
-  B. Neurofibromatosis
- C. Arteriovenous malformation
-  D. Tuberous sclerosis
- E. Lennox-Gastaut syndrome

These skin lesions represent adenoma sebaceum.

### Tuberous sclerosis

Tuberous sclerosis (TS) is a genetic condition of autosomal dominant inheritance. Like neurofibromatosis, the majority of features seen in TS are neuro-cutaneous

Cutaneous features

- depigmented 'ash-leaf' spots which fluoresce under UV light
- roughened patches of skin over lumbar spine (Shagreen patches)
- adenoma sebaceum: butterfly distribution over nose
- fibromata beneath nails (subungual fibromata)
- café-au-lait spots\* may be seen

### Question stats

A	4.4%
B	11.3%
C	3.5%
D	62.3%
E	18.5%

62.3% of users answered this question correctly

Session score = 47.8%

### RCGP curriculum

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### Neurological features

- developmental delay
- epilepsy (infantile spasms or partial)
- intellectual impairment

### Also

- retinal hamartomas: dense white areas on retina (phakomata)
- rhabdomyomas of the heart
- gliomatous changes can occur in the brain lesions
- polycystic kidneys, renal angiomyolipomata

\*these of course are more commonly associated with neurofibromatosis. However a 1998 study of 106 children with TS found café-au-lait spots in 28% of patients

### Rate question:



# Question 24 of 231



A 30-year-old man presents with a two-week history of a productive cough. Whilst examining him you notice a large number of atypical naevi over his torso. On his back you count between 20-25 moles. He reports no change in any of his moles, no bleeding and no itch. One particular mole is noted due to the irregular border. It is 6 \* 4 mm in size.



What is the most appropriate action?



- A. Refer to dermatology for photo mapping
- B. Refer under the two-week rule to dermatology
- C. Advise about sun protection + arrange gene testing for xeroderma pigmentosum
- D. Advise about sun protection + take a digital photo for his records + review in 1 month
- E. Advise about sun protection + take a digital photo for his records

This is very likely to be a melanoma and the patient should be fast-tracked to dermatology. Due to the location and the number of moles he has it is unlikely that he would have noticed any change

## Malignant melanoma: prognostic factors

The invasion depth of a tumour (Breslow depth) is the single most important factor in determining prognosis of patients with malignant melanoma

Breslow Thickness	Approximate 5 year survival
< 1 mm	95-100%
1 - 2 mm	80-96%

## Question stats

A	7.2%
B	85.4%
C	0.9%
D	5.4%
E	1.1%

85.4% of users answered this question correctly

Session score = 50%

## RCGP curriculum

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2.1 - 4 mm	60-75%
> 4 mm	50%

Rate question:



# Question 25 of 231



You review a 27-year-old man who is under the care of the dermatology department.



Image used on license from [DermNet NZ](#)



Which one of the following conditions is most associated with this skin disorder?



- A. Addison's disease
- B. Asthma
- C. Iron-deficiency anaemia
- D. Toxic multinodular goitre



- E. Type 2 diabetes mellitus

Vitiligo is associated with other autoimmune conditions such as Addison's disease, type 1 diabetes mellitus and autoimmune thyroid disorders.

## Vitiligo

Vitiligo is an autoimmune condition which results in the loss of melanocytes and consequent depigmentation of the skin. It is thought to affect around 1% of the population and symptoms typically develop by the age of 20-30 years.

### Features

- well demarcated patches of depigmented skin
- the peripheries tend to be most affected
- trauma may precipitate new lesions (Koebner phenomenon)

### Question stats

A	<div style="width: 80%;"></div>	80%
B	<div style="width: 1.1%;"></div>	1.1%
C	<div style="width: 2.8%;"></div>	2.8%
D	<div style="width: 5.5%;"></div>	5.5%
E	<div style="width: 10.5%;"></div>	10.5%

80% of users answered this question correctly

Session score = 48%

### RCGP curriculum

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### External links

[DermNet NZ](#)

Vitiligo



### Associated conditions

- type 1 diabetes mellitus
- Addison's disease
- autoimmune thyroid disorders
- pernicious anaemia
- alopecia areata

### Management

- sun block for affected areas of skin
- camouflage make-up
- topical corticosteroids may reverse the changes if applied early
- there may also be a role for topical tacrolimus and phototherapy, although caution needs to be exercised with light-skinned patients



### Rate question:








# Question 26 of 231



A patient with a history of tinea capitis presents due to a raised lesion on his scalp. The lesion has been getting gradually bigger over the past two weeks. On examination you find a raised, pustular, spongy mass on the crown of his head. What is the most likely diagnosis

- A. Tinea corporis
- B. Id reaction (auto-eczematisation)
-  C. **Sebacious cyst**
- D. Bacterial skin abscess
-  E. **Kerion**

## Question stats

<b>A</b>		3.6%
<b>B</b>		4.4%
<b>C</b>		12.4%
<b>D</b>		17.3%
<b>E</b>		62.3%

62.3% of users answered this question correctly

Session score = 46.2%

## Tinea

Tinea is a term given to dermatophyte fungal infections. Three main types of infection are described depending on what part of the body is infected

- tinea capitis - scalp
- tinea corporis - trunk, legs or arms
- tinea pedis - feet

### Tinea capitis (scalp ringworm)

- a cause of scarring alopecia mainly seen in children
- if untreated a raised, pustular, spongy/boggy mass called a kerion may form
- most common cause is *Trichophyton tonsurans* in the UK and the USA
- may also be caused by *Microsporum canis* acquired from cats or dogs
- diagnosis: lesions due to *Microsporum canis* green fluorescence under Wood's lamp\*. However the most useful investigation is scalp scrapings
- management (based on CKS guidelines): oral antifungals: terbinafine for *Trichophyton tonsurans* infections and griseofulvin for *Microsporum* infections. Topical ketoconazole shampoo should be given for the first two weeks to reduce transmission

### Tinea corporis

- causes include *Trichophyton rubrum* and *Trichophyton verrucosum* (e.g. From contact with cattle)
- well-defined annular, erythematous lesions with pustules and papules
- may be treated with oral fluconazole

### Tinea pedis (athlete's foot)

- characterised by itchy, peeling skin between the toes

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Fungal skin infection - scalp



- common in adolescence

\*lesions due to Trichophyton species do not readily fluoresce under Wood's lamp

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# Question 27 of 231



A woman burns her arm on the oven door and phones the surgery for advice. She reports a '2 inch by half an inch red line' on her right forearm. The burn is painful but she is otherwise well and has no breathing problems. You book her an appointment for later on in the surgery. What is the most appropriate first aid advice?



- Run under cool (not iced) water for 20 mins + cover in layers of cling film
- Run under cool (not iced) water for 10 mins + apply liberal amounts of E45
- Do nothing until she is seen
- Apply a frozen bag of food (e.g. peas) for 10 mins + cover in layers of cling film
- Apply a bandage that has been soaked in cold water

## Question stats

A	<div></div>	79%
B	<div></div>	11.4%
C	<div></div>	2.9%
D	<div></div>	3.2%
E	<div></div>	3.6%

79% of users answered this question correctly

Session score = 48.1%

## Burns

The following is based on guidance issued by Clinical Knowledge Summaries (please see the link for more details).

### Immediate first aid

- airway, breathing, circulation
- burns caused by heat: remove the person from the source. Within 20 minutes of the injury irrigate the burn with cool (not iced) water for between 10 and 30 minutes. Cover the burn using cling film, layered, rather than wrapped around a limb
- electrical burns: switch off power supply, remove the person from the source
- chemical burns: brush any powder off then irrigate with water. Attempts to neutralise the chemical are not recommended

### Assessing the extent of the burn

- Wallace's Rule of Nines: head + neck = 9%, each arm = 9%, each anterior part of leg = 9%, each posterior part of leg = 9%, anterior chest = 9%, posterior chest = 9%, anterior abdomen = 9%, posterior abdomen = 9%
- Lund and Browder chart: the most accurate method
- the palmar surface is roughly equivalent to 1% of total body surface area (TBSA). Not accurate for burns > 15% TBSA

### Assessing the depth of the burn

Modern	Former	Appearance
--------	--------	------------

## RCGP curriculum

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## External links

[Clinical Knowledge Summaries](#)

Burns and scalds



terminology	terminology	
Superficial epidermal	First degree	Red and painful
Partial thickness (superficial dermal)	Second degree	Pale pink, painful, blistered
Partial thickness (deep dermal)	Second degree	Typically white but may have patches of non-blanching erythema. Reduced sensation
Full thickness	Third degree	White/brown/black in colour, no blisters, no pain

#### Referral to secondary care

- all deep dermal and full-thickness burns.
- superficial dermal burns of more than 10% TBSA in adults, or more than 5% TBSA in children
- superficial dermal burns involving the face, hands, feet, perineum, genitalia, or any flexure, or circumferential burns of the limbs, torso, or neck
- any inhalation injury
- any electrical or chemical burn injury
- suspicion of non-accidental injury

#### Management of burns

- initial first aid as above
- review referral criteria to ensure can be managed in primary care
- superficial epidermal: symptomatic relief - analgesia, emollients etc
- superficial dermal: cleanse wound, leave blister intact, non-adherent dressing, avoid topical creams, review in 24 hours

#### Rate question:



**Question 28 of 231**


A 31-year-old woman develops painful, purple lesions on her shins. Which one of the following medications is most likely to be responsible?

- A. Montelukast
- B. Lansoprazole
- ✓ C. Combined oral contraceptive pill
- D. Sodium valproate
- ✗ E. Carbimazole

**Question stats**

A	2.2%
B	1%
C	69.4%
D	13.3%
E	14%

69.4% of users answered this question correctly

Session score = 46.4%

**Erythema nodosum**
**Overview**

- inflammation of subcutaneous fat
- typically causes tender, erythematous, nodular lesions
- usually occurs over shins, may also occur elsewhere (e.g. forearms, thighs)
- usually resolves within 6 weeks
- lesions heal without scarring

**Causes**

- infection: streptococci, TB, brucellosis
- systemic disease: sarcoidosis, inflammatory bowel disease, Behcet's
- malignancy/lymphoma
- drugs: penicillins, sulphonamides, combined oral contraceptive pill
- pregnancy

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Erythema nodosum

**Rate question:**



# Question 29 of 231



You are teaching a mother about the use of topical steroids for her child with atopic eczema. She has heard about the use of Finger Tip Units (FTU) when determining how much steroid to use. What does 1 FTU equate to?



- Sufficient to treat a skin area about that of a forearm
- Sufficient to treat a skin area about twice that of the flat of an adult hand
- Sufficient to treat a skin area about 5 \* 5 cm (2 \* 2 inches)
- Sufficient to treat a skin area about twice that of the forearm
- Sufficient to treat a skin area about that of the flat of an adult hand

Finger tip unit (FTU) for steroids = twice area of the flat of an adult hand

## Eczema: topical steroids

Use weakest steroid cream which controls patients symptoms

The table below shows topical steroids by potency

Mild	Moderate	Potent	Very potent
Hydrocortisone 0.5-2.5%	Betamethasone valerate 0.025% (Betnovate RD)	Fluticasone propionate 0.05% (Cutivate)	Clobetasol propionate 0.05% (Dermovate)
	Clobetasone butyrate 0.05% (Eumovate)	Betamethasone valerate 0.1% (Betnovate)	

Finger tip rule

- 1 finger tip unit (FTU) = 0.5 g, sufficient to treat a skin area about twice that of the flat of an adult hand

Topical steroid doses for eczema in adults

Area of skin	Fingertip units per dose
Hand and fingers (front and back)	1.0
A foot (all over)	2.0

## Question stats

A	4.2%
B	58.2%
C	4.1%
D	0.9%
E	32.6%

58.2% of users answered this question correctly

Session score = 44.8%

## RCGP curriculum

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## External links

[British Association of Dermatologists](#)

Atopic eczema guidelines



Front of chest and abdomen	7.0
Back and buttocks	7.0
Face and neck	2.5
An entire arm and hand	4.0
An entire leg and foot	8.0

**Rate question:**



### Question 3 of 231



A 52-year-old man asks you to look at the side of his tongue. The white patches have been present for the past few months and are asymptomatic. He is a smoker who is known to have type 2 diabetes mellitus.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- ☒ A. Candidiasis
- ☐ B. Squamous cell carcinoma
- ☐ C. Lichen sclerosis
- ☒ D. Oral leukoplakia
- ☐ E. Geographic tongue

The asymptomatic and prolonged nature of the symptoms goes against a diagnosis of candidiasis. Lichen planus (rather than sclerosis) is a differential diagnosis but tends to have a slightly different appearance - typically a symmetrical white lace-like pattern on the buccal mucosa. Squamous cell carcinoma is not the most likely diagnosis as only around 1% of oral leukoplakias become malignant.

This patient should be referred for a biopsy to confirm the diagnosis.

#### Leukoplakia

Leukoplakia is a premalignant condition which presents as white, hard spots on the mucous membranes of the mouth. It is more common in smokers.

#### Question stats

A	11%
B	3.5%
C	10.2%
D	73.2%
E	2.2%

73.2% of users answered this question correctly

Session score = 66.7%

#### RCGP curriculum

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#### External links

[DermNet NZ](#)

Oral leukoplakia



Leukoplakia is said to be a diagnosis of exclusion. Candidiasis and lichen planus should be considered, especially if the lesions can be 'rubbed off'

Biopsies are usually performed to exclude alternative diagnoses such as squamous cell carcinoma and regular follow-up is required to exclude malignant transformation to squamous cell carcinoma, which occurs in around 1% of patients.

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# Question 30 of 231



A 60-year-old man presents with a painful lesion on his right ear:



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What is the most likely diagnosis?

- ☒ A. Actinic keratosis
- ☐ B. Pseudocyst of the auricle
- ☒ C. Chondrodermatitis nodularis helicis
- ☐ D. Basal cell carcinoma
- ☐ E. Keratoacanthoma

## Question stats

A	5.2%
B	4.3%
C	57.4%
D	24.5%
E	8.6%

57.4% of users answered this question correctly

Session score = 43.3%

## RCGP curriculum

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## Chondrodermatitis nodularis helicis

Chondrodermatitis nodularis helicis (CNH) is a common and benign condition characterised by the development of a painful nodule on the ear. It is thought to be caused by factors such as persistent pressure on the ear (e.g. secondary to sleep, headsets), trauma or cold. CNH is more common in men and with increasing age.

## Management

- reducing pressure on the ear: foam 'ear protectors' may be used during sleep
- other treatment options include cryotherapy, steroid injection, collagen



injection

- surgical treatment may be used but there is a high recurrence rate

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## Question 31 of 231



A 2-year-old girl develops a rash on her legs. By the time she is brought to surgery the rash has spread to the rest of her body.



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What is the most likely diagnosis?



- A. Erythema multiforme
- B. Erythema chronica migrans
- C. Erythema nodosum
- D. Urticaria
- E. Dermatitis artefacta



## Question stats

A	<div style="width: 71.6%;"></div>	71.6%
B	<div style="width: 2.2%;"></div>	2.2%
C	<div style="width: 2%;"></div>	2%
D	<div style="width: 23.8%;"></div>	23.8%
E	<div style="width: 0.4%;"></div>	0.4%

71.6% of users answered this question correctly

Session score = 41.9%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Erythema multiforme

The classic 'target' lesions of erythema multiforme can be seen clearly on this image.

## Erythema multiforme

## Features

- target lesions
- initially seen on the back of the hands / feet before spreading to the torso
- upper limbs are more commonly affected than the lower limbs
- pruritus is occasionally seen and is usually mild

If symptoms are severe and involve blistering and mucosal involvement the term Stevens-Johnson syndrome is used.



## Causes

- viruses: herpes simplex virus (the most common cause), Orf\*
- idiopathic
- bacteria: *Mycoplasma*, *Streptococcus*
- drugs: penicillin, sulphonamides, carbamazepine, allopurinol, NSAIDs, oral contraceptive pill, nevirapine
- connective tissue disease e.g. Systemic lupus erythematosus
- sarcoidosis
- malignancy

\*Orf is a skin disease of sheep and goats caused by a parapox virus

### Rate question:

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### Question 32 of 231



A 17-year-old female presents with multiple comedones, pustules and papules on her face. Which one of the following is least likely to improve her condition?



- A. Topical retinoids
- B. Dietary advice
- C. Sunlight
- D. Oral trimethoprim
- E. Ethinylestradiol with cyproterone acetate

There is no role for dietary modification in patients with acne vulgaris. Ethinylestradiol with cyproterone acetate (Dianette) is useful in some female patients with acne unresponsive to standard treatment. Oral trimethoprim is useful in patients on long-term antibiotics who develop Gram negative folliculitis

#### Acne vulgaris: management

Acne vulgaris is a common skin disorder which usually occurs in adolescence. It typically affects the face, neck and upper trunk and is characterised by the obstruction of the pilosebaceous follicles with keratin plugs which results in comedones, inflammation and pustules.

Acne may be classified into mild, moderate or severe:

- mild: open and closed comedones with or without sparse inflammatory lesions
- moderate acne: widespread non-inflammatory lesions and numerous papules and pustules
- severe acne: extensive inflammatory lesions, which may include nodules, pitting, and scarring

A simple step-up management scheme often used in the treatment of acne is as follows:

- single topical therapy (topical retinoids, benzyl peroxide)
- topical combination therapy (topical antibiotic, benzoyl peroxide, topical retinoid)
- oral antibiotics: e.g. Oxytetracycline, doxycycline. Improvement may not be seen for 3-4 months. Minocycline is now considered less appropriate due to the possibility of irreversible pigmentation. Gram negative folliculitis may occur as a complication of long-term antibiotic use - high-dose oral trimethoprim is effective if this occurs
- oral isotretinoin: only under specialist supervision

There is no role for dietary modification in patients with acne

Rate question:

#### Question stats

A	<div></div>	4.3%
B	<div></div>	65.9%
C	<div></div>	10%
D	<div></div>	15.8%
E	<div></div>	4%

65.9% of users answered this question correctly

Session score = 43.8%

#### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

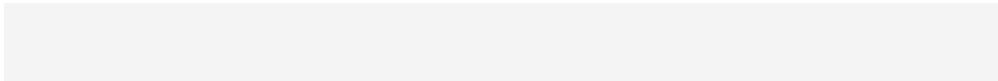
[Curriculum statement](#)

#### External links

[Clinical Knowledge Summaries](#)

Acne vulgaris guidelines







**Question 33 of 231**


Please look at this skin lesion below a patient's eye:



Image used on license from [DermNet NZ](#) and with the kind permission of Prof Raimo Suhonen

Which one of the following medications is most associated with the development of these lesions?

- A. Statins
- B. Prednisolone
- C. Aspirin
- D. Amiodarone
- ✓ E. Combined oral contraceptive pill

**Question stats**

A	5.5%
B	28.8%
C	6.8%
D	16.3%
E	42.6%

42.6% of users answered this question correctly

Session score = 45.5%

**RCGP curriculum**

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

**Spider naevi**

Spider naevi (also called spider angiomas) describe a central red papule with surrounding capillaries. The lesions blanch upon pressure. Spider naevi are almost always found on the upper part of the body.

Around 10-15% of people will have one or more spider naevi and they are more common in childhood. Other associations

- liver disease
- pregnancy



- combined oral contraceptive pill

**Rate question:**

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**Question 34 of 231**


A 34-year-old man presents for the removal of a mole. Where on the body are keloid scars most likely to form?



- A. **Sternum**
- B. Lower back
- C. Abdomen
- D. Flexor surfaces of limbs



- E. **Scalp**

Keloid scars are most common on the sternum

**Keloid scars**

Keloid scars are tumour-like lesions that arise from the connective tissue of a scar and extend beyond the dimensions of the original wound

Predisposing factors

- ethnicity: more common in people with dark skin
- occur more commonly in young adults, rare in the elderly
- common sites (in order of decreasing frequency): sternum, shoulder, neck, face, extensor surface of limbs, trunk

Keloid scars are less likely if incisions are made along relaxed skin tension lines\*

Treatment

- early keloids may be treated with intra-lesional steroids e.g. triamcinolone
- excision is sometimes required

\*Langer lines were historically used to determine the optimal incision line. They were based on procedures done on cadavers but have been shown to produce worse cosmetic results than when following skin tension lines

**Rate question:**

**Question stats**

<b>A</b>	<div style="width: 76.3%;"></div>	76.3%
<b>B</b>	<div style="width: 4.3%;"></div>	4.3%
<b>C</b>	<div style="width: 6.2%;"></div>	6.2%
<b>D</b>	<div style="width: 9.7%;"></div>	9.7%
<b>E</b>	<div style="width: 3.5%;"></div>	3.5%

76.3% of users answered this question correctly

Session score = 44.1%

**RCGP curriculum**

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)



## Question 35 of 231



You are examining the chest of a 74-year-old man and notice the following:



Image used on license from [DermNet.NZ](http://DermNet.NZ)

What is the most likely diagnosis?



- A. Bowen's disease
- B. Multiple benign moles
- C. Metastatic malignant melanoma
- D. Seborrheic keratoses
- E. Dysplastic naevus syndrome



## Question stats

A	4.3%
B	7%
C	1.6%
D	79.5%
E	7.5%

79.5% of users answered this question correctly

Session score = 42.9%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet.NZ](http://DermNet.NZ)

Seborrheic keratoses

This man has multiple seborrheic keratoses, also known as basal cell papillomas.

## Seborrheic keratoses

Seborrheic keratoses are benign epidermal skin lesions seen in older people.

## Features

- large variation in colour from flesh to light-brown to black
- have a 'stuck-on' appearance
- keratotic plugs may be seen on the surface

## Management

- reassurance about the benign nature of the lesion is an option



- options for removal include curettage, cryosurgery and shave biopsy

**Rate question:**

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# Question 36 of 231



A 53-year-old man presents complaining of an itchy scalp and dandruff. On examination he is noted to have eczema on his scalp, behind his ears and around his nose.



Image used on license from [DermNet NZ](#)



He has tried 'Head and Shoulders' and 'Neutrogen T-gel' but with poor results. Which one of the following is the most appropriate treatment for his scalp?



A. Topical hydrocortisone

B. Topical dermivate

C. Topical selenium sulphide

D. Oral terbinafine



E. Topical ketoconazole

## Question stats

A	8.1%
B	4.8%
C	21%
D	3.9%
E	62.3%

62.3% of users answered this question correctly

Session score = 41.7%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet NZ](#)

Overview and pictures of seborrhoeic dermatitis

[Clinical Knowledge Summaries](#)

Seborrhoeic dermatitis guidelines

## Seborrhoeic dermatitis in adults

Seborrhoeic dermatitis in adults is a chronic dermatitis thought to be caused by an inflammatory reaction related to a proliferation of a normal skin inhabitant, a fungus called *Malassezia furfur* (formerly known as *Pityrosporum ovale*). It is common, affecting around 2% of the general population

### Features

- eczematous lesions on the sebum-rich areas: scalp (may cause dandruff),



- periorbital, auricular and nasolabial folds
- otitis externa and blepharitis may develop

Associated conditions include

- HIV
- Parkinson's disease

Scalp disease management

- over the counter preparations containing zinc pyrithione ('Head & Shoulders') and tar ('Neutrogena T/Gel') are first-line
- the preferred second-line agent is ketoconazole
- selenium sulphide and topical corticosteroid may also be useful

Face and body management

- topical antifungals: e.g. Ketoconazole
- topical steroids: best used for short periods
- difficult to treat - recurrences are common

**Rate question:**



### Question 37 of 231



A 34-year-old man presents to his GP with an itchy rash on his genitals and palms. He has also noticed the rash around the site of a recent scar on his forearm. Examination reveals papules with a white-lace pattern on the surface. What is the diagnosis?



- A. Lichen planus
- B. Scabies
- C. Lichen sclerosus
- D. Morphea
- E. Pityriasis rosea

#### Question stats

A	<div style="width: 69%;"></div>	69%
B	<div style="width: 7.4%;"></div>	7.4%
C	<div style="width: 17.1%;"></div>	17.1%
D	<div style="width: 4.2%;"></div>	4.2%
E	<div style="width: 2.3%;"></div>	2.3%

69% of users answered this question correctly

Session score = 43.2%

#### Lichen

- planus: purple, pruritic, papular, polygonal rash on flexor surfaces. Wickham's striae over surface. Oral involvement common
- sclerosus: itchy white spots typically seen on the vulva of elderly women

This is a typical history of lichen planus

#### Lichen planus

Lichen planus is a skin disorder of unknown aetiology, most probably being immune mediated

#### Features

- itchy, papular rash most common on the palms, soles, genitalia and flexor surfaces of arms
- rash often polygonal in shape, 'white-lace' pattern on the surface (Wickham's striae)
- Koebner phenomenon may be seen (new skin lesions appearing at the site of trauma)
- oral involvement in around 50% of patients
- nails: thinning of nail plate, longitudinal ridging

Lichenoid drug eruptions - causes:

- gold
- quinine
- thiazides

Management

#### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

#### External links

[DermNet NZ](#)

Picture of lichen planus

[DermNet NZ](#)

Picture of Wickham's striae



- topical steroids are the mainstay of treatment
- extensive lichen planus may require oral steroids or immunosuppression

**Rate question:**

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**Question 38 of 231**


A 54-year-old man presents with a two month history of a rapidly growing lesion on his right forearm. The lesion initially appeared as a red papule but in the last two weeks has become a crater filled centrally with yellow/brown material. On examination the man has skin type II, the lesion is 4 mm in diameter and is morphologically as described above. What is the most likely diagnosis?

- A. Seborrhoeic keratosis
- B. Keratoacanthoma
- C. Pyoderma gangrenosum
- D. Basal cell carcinoma
- E. Malignant melanoma


**Question stats**

A	3.2%
B	60.1%
C	21.1%
D	10.6%
E	4.9%

60.1% of users answered this question correctly

Session score = 42.1%

**Keratoacanthoma**

Keratoacanthoma is a benign epithelial tumour. They are more frequent in middle age and do not become more common in old age (unlike basal cell and squamous cell carcinoma)

Features - said to look like a volcano or crater

- initially a smooth dome-shaped papule
- rapidly grows to become a crater centrally-filled with keratin

Spontaneous regression of keratoacanthoma within 3 months is common, often resulting in a scar. Such lesions should however be urgently excised as it is difficult clinically to exclude squamous cell carcinoma. Removal also may prevent scarring

**RCGP curriculum**

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

**External links**

[DermNet NZ](#)

Keratoacanthoma pictures

**Rate question:**



## Question 39 of 231





You review an 82-year-old woman who has developed 'sores' on her legs. For the past two years she has had dry, itchy skin around her ankles but over the past few weeks the skin has started to break down.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Necrobiosis lipoidica diabetorum
- B. Pyoderma gangrenosum
-  C. Arterial ulcers
-  D. Venous ulcers
- E. Pretibial myxoedema

The dry, skin represents varicose eczema. Arterial ulcers tend to have a more 'punched-out' appearance.

**Venous ulceration**

## Question stats

A	8.8%
B	8%
C	14.3%
D	65.4%
E	3.4%

65.4% of users answered this question correctly

Session score = 41%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[BMJ](#)

Management of venous leg ulcers



Venous ulceration is typically seen above the medial malleolus

### Investigations

- ankle-brachial pressure index (ABPI) is important in non-healing ulcers to assess for poor arterial flow which could impair healing
- a 'normal' ABPI may be regarded as between 0.9 - 1.2. Values below 0.9 indicate arterial disease. Interestingly, values above 1.3 may also indicate arterial disease, in the form of false-negative results secondary to arterial calcification (e.g. In diabetics)

### Management

- compression bandaging, usually four layer (only treatment shown to be of real benefit)
- oral pentoxifylline, a peripheral vasodilator, improves healing rate
- small evidence base supporting use of flavinoids
- little evidence to suggest benefit from hydrocolloid dressings, topical growth factors, ultrasound therapy and intermittent pneumatic compression

### Rate question:



## Question 4 of 231



A 54-year-old man with a history of type 2 diabetes mellitus and benign prostatic hyperplasia is referred to dermatology due to a number of lesions over his shin. On examination symmetrical, erythematous, tender, nodules are found. The lesions have started to heal without scarring. What is the most likely diagnosis?



- A. Necrobiosis lipoidica diabetorum
- B. Erythema nodosum
- C. Pyoderma gangrenosum
- D. Syphilis
- E. Pretibial myxoedema

The diagnosis in this question needs to be made on the description of the lesions as the past medical history is not relevant.

## Shin lesions

The differential diagnosis of shin lesions includes the following conditions:

- erythema nodosum
- pretibial myxoedema
- pyoderma gangrenosum
- necrobiosis lipoidica diabetorum

Below are the characteristic features:

## Erythema nodosum

- symmetrical, erythematous, tender, nodules which heal without scarring
- most common causes are streptococcal infections, sarcoidosis, inflammatory bowel disease and drugs (penicillins, sulphonamides, oral contraceptive pill)

## Pretibial myxoedema

- symmetrical, erythematous lesions seen in Graves' disease
- shiny, orange peel skin

## Pyoderma gangrenosum

- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- idiopathic in 50%, may also be seen in inflammatory bowel disease, connective tissue disorders and myeloproliferative disorders

## Necrobiosis lipoidica diabetorum

## Question stats

A		20.7%
B		73.7%
C		3.6%
D		0.1%
E		1.9%

73.7% of users answered this question correctly

Session score = 75%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet NZ](#)

Picture of erythema nodosum

[DermIS.net](#)

Picture of pretibial myxoedema

[DermNet NZ](#)

Picture of pyoderma gangrenosum

[DermNet NZ](#)

Picture of necrobiosis lipoidica



- shiny, painless areas of yellow/red skin typically on the shin of diabetics
- often associated with telangiectasia

**Rate question:**



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# Question 40 of 231



A 26-year-old newly qualified nurse presents as she has developed a bilateral erythematous rash on both hands. She has recently emigrated from the Philippines and has no past medical history of note. A diagnosis of contact dermatitis is suspected. What is the most suitable to test to identify the underlying cause?

- A. Radioallergosorbent test (RAST)
- B. Latex IgM levels
-  C. Skin prick test
- D. Urinary porphyrins
-  E. Skin patch test

## Question stats

A		11.4%
B		9.2%
C		11.6%
D		0.2%
E		67.6%

67.6% of users answered this question correctly

Session score = 40%

The skin patch test is useful in this situation as it may also identify for irritants, not just allergens

## Allergy tests

<b>Skin prick test</b>	<p>Most commonly used test as easy to perform and inexpensive. Drops of diluted allergen are placed on the skin after which the skin is pierced using a needle. A large number of allergens can be tested in one session. Normally includes a histamine (positive) and sterile water (negative) control. A wheal will typically develop if a patient has an allergy. Can be interpreted after 15 minutes</p> <p>Useful for food allergies and also pollen</p>
<b>Radioallergosorbent test (RAST)</b>	<p>Determines the amount of IgE that reacts specifically with suspected or known allergens, for example IgE to egg protein. Results are given in grades from 0 (negative) to 6 (strongly positive)</p> <p>Useful for food allergies, inhaled allergens (e.g. Pollen) and wasp/bee venom</p> <p>Blood tests may be used when skin prick tests are not suitable, for example if there is extensive eczema or if the patient is taking antihistamines</p>
<b>Skin patch testing</b>	<p>Useful for contact dermatitis. Around 30-40 allergens are placed on the back. Irritants may also be tested for. The patches are removed 48 hours later with the results being read by a dermatologist after a further 48 hours</p>

## RCGP curriculum

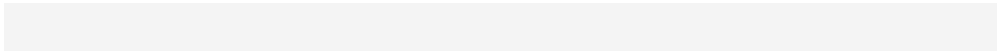
15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

Rate question:





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## Question 41 of 231



Please look at the skin lesion shown below:



Image used on license from [DermNet NZ](#)

## Question stats

A	<div style="width: 50.8%;"></div>	50.8%
B	<div style="width: 8.7%;"></div>	8.7%
C	<div style="width: 10.8%;"></div>	10.8%
D	<div style="width: 17.3%;"></div>	17.3%
E	<div style="width: 12.5%;"></div>	12.5%

50.8% of users answered this question correctly

Session score = 41.5%

## RCGP curriculum

15.10 - Skin Problems

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Which one of the following statements regarding this type of skin lesion is true?



- A. **Curettage is an acceptable treatment option**
- B. They exhibit the Koebner phenomenon
- C. They typically grow rapidly
- D. Bleeding is unusual
- E. Metastases are present in 10% of patients at the time of diagnosis

## External links

[DermNet NZ](#)

Basal cell carcinoma

## Basal cell carcinoma

Basal cell carcinoma (BCC) is one of the three main types of skin cancer. Lesions are also known as rodent ulcers and are characterised by slow-growth and local invasion. Metastases are extremely rare. BCC is the most common type of cancer in the Western world.



## Features

- many types of BCC are described. The most common type is nodular BCC, which is described here
- sun-exposed sites, especially the head and neck account for the majority of lesions
- initially a pearly, flesh-coloured papule with telangiectasia
- may later ulcerate leaving a central 'crater'

## Management options:

- surgical removal
- curettage
- cryotherapy
- topical cream: imiquimod, fluorouracil
- radiotherapy


### Rate question:

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**Question 42 of 231**


A 23-year-old man presents with a three day history of general malaise and low-grade temperature. Yesterday he developed extensive painful ulceration of his mouth and gums. On examination his temperature is 37.4°C, pulse 84 / min and there is submandibular lymphadenopathy. What is the most likely diagnosis?

- A. Epstein Barr virus
- B. Lichen planus
- C. HIV seroconversion illness
-  D. **Herpes simplex virus infection**
- E. Oral *Candida*

This man has gingivostomatitis, a characteristic feature of primary herpes simplex virus infection

**Herpes simplex virus**

There are two strains of the herpes simplex virus (HSV) in humans: HSV-1 and HSV-2. Whilst it was previously thought HSV-1 accounted for oral lesions (cold sores) and HSV-2 for genital herpes it is now known there is considerable overlap






**Features**

- primary infection: may present with a severe gingivostomatitis
- cold sores
- painful genital ulceration

**Management**

- gingivostomatitis: oral aciclovir, chlorhexidine mouthwash
- cold sores: topical aciclovir although the evidence base for this is modest
- genital herpes: oral aciclovir. Some patients with frequent exacerbations may benefit from longer term aciclovir

**Rate question:**
**Question stats**

<b>A</b>		23%
<b>B</b>		1.7%
<b>C</b>		18.4%
<b>D</b>		56%
<b>E</b>		0.9%

56% of users answered this question correctly

Session score = 42.9%

**RCGP curriculum**

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)



### Question 43 of 231



A 34-year-old man with a history of polyarthralgia, back pain and diarrhoea is found to have a 3 cm red lesion on his shin which is starting to ulcerate. What is the most likely diagnosis?

- A. Systemic *Shigella* infection
- B. Syphilis
- C. Metastatic colon cancer
- D. Erythema nodosum
- E. **Pyoderma gangrenosum**



This patient is likely to have ulcerative colitis, which has a known association with large-joint arthritis, sacroiliitis and pyoderma gangrenosum

### Pyoderma gangrenosum

#### Features

- typically on the lower limbs
- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- may be accompanied systemic symptoms e.g. Fever, myalgia

#### Causes\*

- idiopathic in 50%
- inflammatory bowel disease: ulcerative colitis, Crohn's
- rheumatoid arthritis, SLE
- myeloproliferative disorders
- lymphoma, myeloid leukaemias
- monoclonal gammopathy (IgA)
- primary biliary cirrhosis

#### Management

- the potential for rapid progression is high in most patients and most doctors advocate oral steroids as first-line treatment
- other immunosuppressive therapy, for example ciclosporin and infliximab, have a role in difficult cases

\*note whilst pyoderma gangrenosum can occur in diabetes mellitus it is rare and is generally not included in a differential of potential causes

**Rate question:**

#### Question stats

<b>A</b>		4%
<b>B</b>		2.8%
<b>C</b>		0.4%
<b>D</b>		18.7%
<b>E</b>		74.1%

74.1% of users answered this question correctly

Session score = 44.2%

#### RCGP curriculum

15.10 - Skin Problems

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#### External links

[DermNet NZ](#)

Picture of pyoderma gangrenosum

[DermNet NZ](#)

Stoma skin problems







## Questions 44 to 46 of 231



**Theme:** Causes of pruritus

- A** Liver disease
- B** Hypothyroidism
- C** Diabetes mellitus
- D** Pregnancy
- E** Chronic kidney disease
- F** Polycythaemia
- G** Iron deficiency anaemia
- H** Senile pruritus
- I** Scabies
- J** Lymphoma

## Question stats

Average score for registered users:

<b>44</b>	<div style="width: 91%;"></div>	91%
<b>45</b>	<div style="width: 42.5%;"></div>	42.5%
<b>46</b>	<div style="width: 88.1%;"></div>	88.1%

Session score = 47.8%

For each of the following scenarios select the most likely diagnosis:

- 44.** A 52-year-old woman presents with pruritus and lethargy. She has recently put on weight and is complaining about dry skin



Hypothyroidism

- 45.** A 57-year-old woman presents with pruritus. She states she has been gaining weight despite eating less and complains of constant nausea. On examination she is pale



Chronic kidney disease

Pregnancy is highly unlikely given her age.

- 46.** A 59-year-old man complains of pruritus and lethargy. On examination he has spoon shaped nails and a smooth tongue



Iron deficiency anaemia

## Pruritus



The table below lists the main characteristics of the most important causes of pruritus

<b>Liver disease</b>	History of alcohol excess Stigmata of chronic liver disease: spider naevi, bruising, palmar erythema, gynaecomastia etc Evidence of decompensation: ascites, jaundice, encephalopathy
<b>Iron deficiency anaemia</b>	Pallor Other signs: koilonychia, atrophic glossitis, post-cricoid webs, angular stomatitis
<b>Polycythaemia</b>	Pruritus particularly after warm bath 'Ruddy complexion' Gout Peptic ulcer disease
<b>Chronic kidney disease</b>	Lethargy & pallor Oedema & weight gain Hypertension
<b>Lymphoma</b>	Night sweats Lymphadenopathy Splenomegaly, hepatomegaly Fatigue

Other causes:

- hyper- and hypothyroidism
- diabetes
- pregnancy
- 'senile' pruritus
- urticaria
- skin disorders: eczema, scabies, psoriasis, pityriasis rosea

**Rate question:**



# Question 47 of 231





A 67-year-old man who is a retired builder presents following the development of a number of red, scaly lesions on his forehead. These were initially small and flat but are now erythematous and rough to touch.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Pityriasis versicolor
- B. Seborrhoeic keratosis
-  C. Polymorphous light eruption
-  D. Actinic keratoses
- E. Malignant melanoma

## Question stats

A	2.5%
B	17.9%
C	3.7%
D	75.2%
E	0.6%

75.2% of users answered this question correctly

Session score = 46.8%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[British Association of Dermatologists](#)

2007 Actinic keratoses guidelines

[DermNet NZ](#)

Actinic keratoses

## Actinic keratoses

Actinic, or solar, keratoses (AK) is a common premalignant skin lesion that develops as a consequence of chronic sun exposure

### Features

- small, crusty or scaly, lesions
- may be pink, red, brown or the same colour as the skin
- typically on sun-exposed areas e.g. temples of head
- multiple lesions may be present



Management options include

- prevention of further risk: e.g. sun avoidance, sun cream
- fluorouracil cream: typically a 2 to 3 week course. The skin will become red and inflamed - sometimes topical hydrocortisone is given following fluorouracil to help settle the inflammation
- topical diclofenac: may be used for mild AKs. Moderate efficacy but much fewer side-effects
- topical imiquimod: trials have shown good efficacy
- cryotherapy
- curettage and cautery

**Rate question:**

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# Question 48 of 231



A 85-year-old lady presents to her GP complaining of itchy white plaques affecting her vulva. There is no history of vaginal discharge or bleeding. A similar plaque is also seen on her inner thigh. What is the likely diagnosis?

- A. *Candida*
- B. Lichen planus
- C. Lichen sclerosus
- D. Herpes simplex
- E. Seborrhoeic dermatitis



## Question stats

A	5.3%
B	21.6%
C	72%
D	0.5%
E	0.6%

72% of users answered this question correctly

Session score = 45.8%

## Lichen

- planus: purple, pruritic, papular, polygonal rash on flexor surfaces. Wickham's striae over surface. Oral involvement common
- sclerosus: itchy white spots typically seen on the vulva of elderly women

The correct answer is lichen sclerosus. *Candida* may cause pruritus and white plaques but lesions would not also be seen on her inner thigh

## Lichen sclerosus

Lichen sclerosus was previously termed lichen sclerosus et atrophicus. It is an inflammatory condition which usually affects the genitalia and is more common in elderly females. Lichen sclerosus leads to atrophy of the epidermis with white plaques forming

## Features

- itch is prominent

A biopsy is often performed to exclude other diagnoses

## Management

- topical steroids and emollients
- increased risk of vulval cancer

## Rate question:

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet NZ](#)

Lichen sclerosus







## Question 49 of 231



A 34-year-old man presents with unsightly toes:



What is the most likely causative organism?



- A. *Microsporum gypseum*
- B. *Trichophyton interdigitale*
- C. *Candida*
- D. Non-dermatophytic moulds
- E. *Trichophyton rubrum*



## Question stats

A	9.4%
B	15.3%
C	6.9%
D	4.3%
E	64.2%

64.2% of users answered this question correctly

Session score = 44.9%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[Clinical Knowledge Summaries](#)

Fungal nail infections

## Fungal nail infections

Onychomycosis is fungal infection of the nails. This may be caused by

- dermatophytes - mainly *Trichophyton rubrum*, accounts for 90% of cases
- yeasts - such as *Candida*
- non-dermatophyte moulds

## Features

- 'unsightly' nails are a common reason for presentation
- thickened, rough, opaque nails are the most common finding

## Investigation

- nail clippings



scrapings of the affected nail

### Management

- treatment is successful in around 50-80% of people
- diagnosis should be confirmed by microbiology before starting treatment
- dermatophyte infection: oral terbinafine is currently recommended first-line with oral itraconazole as an alternative. Six weeks - 3 months therapy is needed for fingernail infections whilst toenails should be treated for 3 - 6 months
- *Candida* infection: mild disease should be treated with topical antifungals (e.g. Amorolfine) whilst more severe infections should be treated with oral itraconazole for a period of 12 weeks

### Rate question:

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**Question 50 of 231**


Which one of the following best describes the typical distribution of atopic eczema in a 10-month-old child?



- A. Nappy area and flexor surfaces of arms and legs
- B. **Face and trunk**
- C. Nappy area and trunk
- D. Flexor surfaces of arms and legs
- E. Scalp and arms

**Question stats**

<b>A</b>		21.7%
<b>B</b>		50.2%
<b>C</b>		5.6%
<b>D</b>		18.5%
<b>E</b>		3.9%

50.2% of users answered this question correctly

Session score = 46%

**Eczema in children**

Eczema occurs in around 15-20% of children and is becoming more common. It typically presents before 6 months but clears in around 50% of children by 5 years of age and in 75% of children by 10 years of age

**Features**

- in infants the face and trunk are often affected
- in younger children eczema often occurs on the extensor surfaces
- in older children a more typical distribution is seen, with flexor surfaces affected and the creases of the face and neck

**Management**

- avoid irritants
- simple emollients: large quantities should be prescribed (e.g. 250g / week), roughly in a ratio of with topical steroids of 10:1. If emollients are used in conjunction with a topical steroid they should be applied around 30 minutes after the steroid
- topical steroids
- in severe cases wet wraps and oral ciclosporin may be used

**RCGP curriculum**

15.10 - Skin Problems

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**External links**

[British Association of Dermatologists](#)

Atopic eczema guidelines

**Rate question:**



**Question 1 of 181**


A 62-year-old patient with type 2 diabetes mellitus presents with a 'rash' on his left shin. This has grown in size over the past two days and is now a painful, hot, erythematous area on his anterior left shin spreading around to the back of the leg. He is systemically well and a decision is made to give oral treatment. He has a past history of penicillin allergy. What is the most appropriate antibiotic to give?

- A. Ciprofloxacin
- B. Cefaclor
- C. Clindamycin
- D. Vancomycin
- E. Erythromycin


**Question stats**

<b>A</b>		5.5%
<b>B</b>		1.2%
<b>C</b>		20.4%
<b>D</b>		1%
<b>E</b>		71.9%

71.9% of users answered this question correctly

Session score = 100%

**Cellulitis: management**

The BNF recommends flucloxacillin as first-line treatment for mild/moderate cellulitis. Erythromycin is recommend in patients allergic to penicillin. Treatment failure is now commonly treated with oral clindamycin.

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**Question 5 of 231**


A 22-year-old woman presents due to hypopigmented skin lesions on her chest and back. She has recently returned from holiday in Spain and has tanned skin. On examination the lesions are slightly scaly. What is the most likely diagnosis?

- ✓
- A. Tinea corporis
  - B. Pityriasis versicolor
  - C. Porphyria cutanea tarda
  - D. Lyme disease
  - ✗ E. Psoriasis

**Question stats**

A		9.2%
B		81.3%
C		4.7%
D		1.2%
E		3.5%

81.3% of users answered this question correctly

Session score = 60%

**Pityriasis versicolor**

Pityriasis versicolor, also called tinea versicolor, is a superficial cutaneous fungal infection caused by *Malassezia furfur* (formerly termed *Pityrosporum ovale*)

**Features**

- most commonly affects trunk
- patches may be hypopigmented, pink or brown (hence versicolor)
- scale is common
- mild pruritus

**Predisposing factors**

- occurs in healthy individuals
- immunosuppression
- malnutrition
- Cushing's

**Management**

- topical antifungal e.g. terbinafine or selenium sulphide
- if extensive disease or failure to respond to topical treatment then consider oral itraconazole

**Rate question:**
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**External links**

[DermNet NZ](#)

Picture of pityriasis versicolor 1

[DermNet NZ](#)

Picture of pityriasis versicolor 2

[DermNet NZ](#)

Hypopigmentation post pityriasis versicolor



## Question 2 of 181

A 30-year-old female in her third trimester of pregnancy mentions during an antenatal appointment that she has noticed an itchy rash around her umbilicus. This is her second pregnancy and she had no similar problems in her first pregnancy. Examination reveals blistering lesions in the peri-umbilical region and on her arms. What is the likely diagnosis?

- A. Seborrhoeic dermatitis
- B. Pompholyx
- C. Polymorphic eruption of pregnancy
- D. Lichen planus
- E. Pemphigoid gestationis



Polymorphic eruption of pregnancy is not associated with blistering

Pemphigoid gestationis is the correct answer. Polymorphic eruption of pregnancy is not associated with blistering

### Skin disorders associated with pregnancy

Polymorphic eruption of pregnancy

- pruritic condition associated with last trimester
- lesions often first appear in abdominal striae
- management depends on severity: emollients, mild potency topical steroids and oral steroids may be used

Pemphigoid gestationis

- pruritic blistering lesions
- often develop in peri-umbilical region, later spreading to the trunk, back, buttocks and arms
- usually presents 2nd or 3rd trimester and is rarely seen in the first pregnancy
- oral corticosteroids are usually required

Rate question:

### Question stats

A	0.9%
B	3%
C	31.3%
D	0.5%
E	64.2%

64.2% of users answered this question correctly

Session score = 100%

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### External links

[DermNet NZ](#)

Polymorphic eruption of pregnancy

[DermNet NZ](#)

Pemphigoid gestationis



**Question 3 of 181**

A 59-year-old man complains of dry, sore eyes for the past six months. There has been no change in his vision and he doesn't wear contact lens. The only past history of note is hypothyroidism.

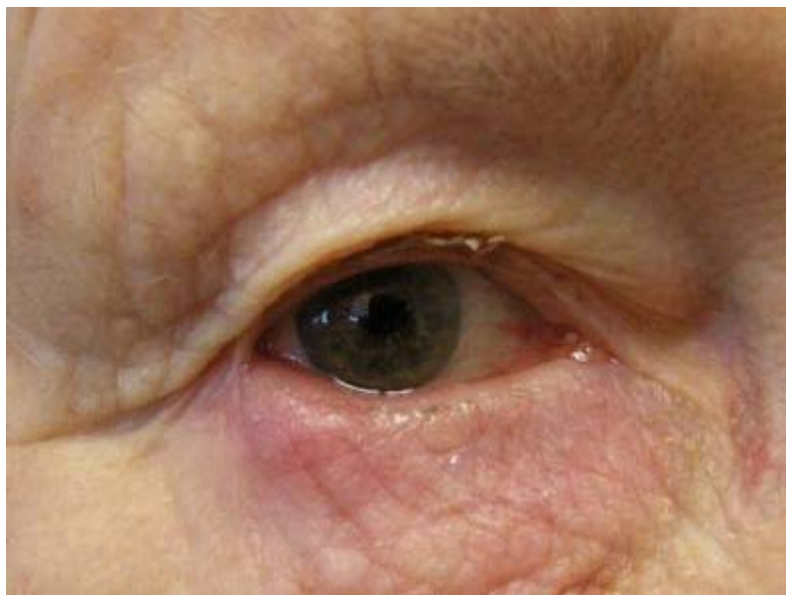


Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- ☒ A. **Blepharitis**
- ☐ B. Grave's eye disease
- ☐ C. Episcleritis
- ☐ D. Conjunctivitis
- ☐ E. Hay fever

**Question stats**

A	<div style="width: 84.9%;"></div>	84.9%
B	<div style="width: 5.3%;"></div>	5.3%
C	<div style="width: 7.7%;"></div>	7.7%
D	<div style="width: 1.1%;"></div>	1.1%
E	<div style="width: 1%;"></div>	1%

84.9% of users answered this question correctly

Session score = 100%

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Blepharitis guidelines

**Blepharitis**

Blepharitis is inflammation of the eyelid margins. It may be due to either meibomian gland dysfunction (common, posterior blepharitis) or seborrhoeic dermatitis/staphylococcal infection (less common, anterior blepharitis). Blepharitis is also more common in patients with rosacea.

The meibomian glands secrete oil on to the eye surface to prevent rapid evaporation of the tear film. Any problem affecting the meibomian glands (as in blepharitis) can hence cause drying of the eyes which in turn leads to irritation.



## Features

- symptoms are usually bilateral
- grittiness and discomfort, particularly around the eyelid margins
- eyes may be sticky in the morning
- eyelid margins may be red. Swollen eyelids may be seen in staphylococcal blepharitis
- styes and chalazions are more common in patients with blepharitis
- secondary conjunctivitis may occur

## Management

- softening of the lid margin using hot compresses twice a day
- mechanical removal of the debris from lid margins - cotton wool buds dipped in a mixture of cooled boiled water and baby shampoo is often used\*
- artificial tears may be given for symptom relief in people with dry eyes or an abnormal tear film

\*an alternative is sodium bicarbonate, a teaspoonful in a cup of cooled water that has recently been boiled

**Rate question:**



**Question 4 of 181**


A 18-year-old man complains of an itchy sensation around his toes;



What is the most appropriate first line treatment?

- A. Topical nystatin
- ✓ B. Topical miconazole
- C. Topical amorolfine
- D. Topical steroid
- E. Antiperspirant dusting powders

**Question stats**

A	7.7%
B	80.2%
C	8.4%
D	0.5%
E	3.2%

80.2% of users answered this question correctly

Session score = 75%

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Athlete's foot guidelines

**Athlete's foot**

Athlete's foot is also known as tinea pedis. It is usually caused by fungi in the genus Trichophyton.

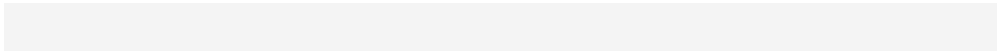
**Features**

- typically scaling, flaking, and itching between the toes

Clinical knowledge summaries recommend a topical imidazole, undecenoate, or terbinafine first-line

**Rate question:**





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## Question 5 of 181





A 56-year-old woman develops a rash in both axilla:



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What is the most likely diagnosis?

- A. Pellagra
- B. Erythema gyratum repens
- C. Hidradenitis suppurativa
-  D. Tinea corporis
-  E. Acanthosis nigricans

This image shows the typical brown, velvety patches which affect the axilla, neck and groin.

### Acanthosis nigricans

Describes symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin

Causes

- gastrointestinal cancer
- insulin-resistant diabetes mellitus
- obesity
- polycystic ovarian syndrome
- acromegaly

#### Question stats

A	2.1%
B	1.3%
C	8.1%
D	5.2%
E	83.2%

83.2% of users answered this question correctly

Session score = 60%

#### RCGP curriculum

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#### External links

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Acanthosis nigricans



- Cushing's disease
- hypothyroidism
- familial
- Prader-Willi syndrome
- drugs: oral contraceptive pill, nicotinic acid

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# Question 6 of 181



A 54-year-old man is referred by his GP to the dermatology outpatient department due to a facial rash which has persisted for the past 12 months. On examination there is a symmetrical rash consisting of extensive pustules and papules which affects his nose, cheeks and forehead. What is the most appropriate treatment?



- A. Ciprofloxacin
- B. Isotretinoin
- C. Oxytetracycline
- D. Hydroxychloroquine
- E. Prednisolone

As there is extensive involvement oral oxytetracycline should probably be used rather than topical metronidazole

## Acne rosacea

Acne rosacea is a chronic skin disease of unknown aetiology

### Features

- typically affects nose, cheeks and forehead
- flushing is often first symptom
- telangiectasia are common
- later develops into persistent erythema with papules and pustules
- rhinophyma
- ocular involvement: blepharitis

### Management

- topical metronidazole may be used for mild symptoms (i.e. Limited number of papules and pustules, no plaques)
- more severe disease is treated with systemic antibiotics e.g. Oxytetracycline
- recommend daily application of a high-factor sunscreen
- camouflage creams may help conceal redness
- laser therapy may be appropriate for patients with prominent telangiectasia

### Rate question:

### Question stats

A	1.9%
B	10.3%
C	81.2%
D	2.2%
E	4.4%

81.2% of users answered this question correctly

Session score = 50%

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### External links

[Clinical Knowledge Summaries](#)

Rosacea guidelines



# Question 7 of 181



A 27-year-old man with a history of depression and coeliac disease presents with an itchy rash on his buttocks:



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What is the most likely diagnosis?

- A. Linear IgA dermatosis
- B. Neurotic excoriations
- C. Scabies
- ☒ D. **Dermatitis herpetiformis**
- ☐ E. **SSRI-associated dermatitis**

## Question stats

A	4%
B	4.5%
C	8.2%
D	78.7%
E	4.5%

78.7% of users answered this question correctly

Session score = 42.9%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Dermatitis herpetiformis

## Dermatitis herpetiformis

Dermatitis herpetiformis is an autoimmune blistering skin disorder associated with coeliac disease. It is caused by deposition of IgA in the dermis.

### Features

- itchy, vesicular skin lesions on the extensor surfaces (e.g. elbows, knees buttocks)



### Diagnosis

- skin biopsy: direct immunofluorescence shows deposition of IgA in a granular pattern in the upper dermis

### Management

- gluten-free diet
- dapsone

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## Dermatitis herpetiformis

Dermatitis herpetiformis (also known as 'DH') is a rare but persistent immunobullous skin condition related to coeliac disease. It affects young adults; two thirds of patients are male. There is a genetic predisposition.

'Immunobullous' means it is a blistering condition caused by an abnormal immunological reaction. All forms of coeliac disease involve IgA antibodies and intolerance to the gliadin fraction of gluten found in wheat; the precise reaction has not been identified.

Eighty percent of patients with dermatitis herpetiformis also have gluten enteropathy, which is the most common type of coeliac disease. There is an association with thyroid disease in one third.

### Clinical features

Dermatitis herpetiformis characteristically affects the scalp, buttocks, elbows and knees but lesions may arise on any area of skin. Extremely itchy bumps ([prurigo](#) papules) and blisters (vesicles) up to 1 cm in diameter arise on normal or reddened skin. The severity can vary from week to week but it rarely clears up without specific treatment.

Dermatitis herpetiformis







## Gluten enteropathy

Gluten enteropathy may affect children and adults. It is characterised by villous atrophy. This means that instead of being highly convoluted, the lining of the intestines is smooth and flattened. The result is poor or very poor absorption of nutrients. The patient may feel well or develop the following symptoms:

- Tiredness (80%)
- Abdominal discomfort and bloating (75%)
- Weight loss (30%)
- Constipation (30%) or diarrhoea (50%)
- Pale stools that float on the surface of the toilet pan
- Bone fractures due to osteoporosis

## Other associated conditions

The range of conditions less commonly induced by gluten also includes:

- Neurological problems including ataxia (loss of balance), polyneuropathy, epilepsy
- Heart problems including pericarditis and cardiomyopathy
- Thin dental enamel
- Recurrent abortions (miscarriage)
- Fatty liver resulting in abnormal liver function
- Aphthous ulcers

Patients with coeliac disease sometimes suffer from other autoimmune conditions possibly associated with gluten intolerance. These include insulin-dependent diabetes mellitus, thyroiditis, autoimmune hepatitis, Sjögren's syndrome, [Addison's disease](#), atrophic gastritis and [alopecia areata](#).

They may also be affected by conditions that are not related to gluten intolerance. These include IgA deficiency, [psoriasis](#), [Down syndrome](#) and primary biliary cirrhosis.

Non-Hodgkin's lymphoma, affecting the intestines or any part of the body, is a serious complication of gluten enteropathy but is fortunately rare, affecting less than 1% of patients.

## Laboratory findings

Although dermatologists may suspect the diagnosis from the clinical appearance, a [skin biopsy](#) is usually necessary to confirm it. The microscopic appearance of dermatitis herpetiformis is characteristic.

- The blister is subepidermal (it forms underneath the epidermis)
- The inflammatory cells (neutrophils and eosinophils) group in the dermal papillae
- Direct immunofluorescence reveals IgA immunoglobulin in dermal papillae



The results of blood tests are usually normal but some patients have the following abnormalities, due to gluten enteropathy:

- Mild anaemia
- Folic acid deficiency
- Iron deficiency

Specific autoantibody tests are available to confirm the diagnosis.

- Antiendomysial antibodies (IgA)
- Tissue transglutaminase antibody (IgA)
- Deamidated gliadin peptide antibody (dGP, IgA and IgG)
- Gliadin assay (IgA and IgG)

Borderline results may be difficult to interpret.

Other tests may include:

- Total IgA
- Histocompatibility antigen typing: HLA-DR3 and DQw2 are present in most patients with coeliac disease. About 5% of those with HLA-DQ are affected by one form or other of coeliac disease
- Small bowel biopsy

The bowel may appear normal because of treatment (medicine or restricted intake of gluten), because there are skip lesions (the sample was taken from an unaffected site) or the intestine may be unaffected by the disease.

## Treatment

The medication of choice is [dapsone](#), which considerably reduces the itch within a day or two. The dose required varies from 50 mg to 300 mg daily; refer to DermNet's page about dapsone for potential side effects and monitoring requirements.

For those intolerant or allergic to dapsone, the following may be useful:

- Ultrapotent [topical steroids](#)
- [Systemic steroids](#)
- Sulfapyridine (not available in New Zealand).

A strict gluten-free diet is strongly recommended.

- It reduces the requirement for dapsone
- It improves associated gluten enteropathy
- It enhances nutrition and bone density
- It may reduce the risk of developing other autoimmune conditions
- It probably reduces the risk of intestinal lymphoma.

## Related information

### Other websites:

- [Manufactured Food Database](#) (NZ) for gluten free diet
- [NZ Coeliac Society](#)
- [Gluten Intolerance Group of North America](#)



- [Dermatitis herpetiformis](#) – emedicine dermatology, the online textbook
- [Dermatitis Herpetiformis](#) – British Association of Dermatologists

**Author:** DermNet Editorial team  
Department of Dermatology, Health Waikato.

DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a dermatologist for advice.

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## Question 8 of 181



A 64-year-old man presents with a 'rash' on his legs which has developed over the past few days:



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## Question stats

A	<div style="width: 63.8%;"></div>	63.8%
B	<div style="width: 14%;"></div>	14%
C	<div style="width: 5%;"></div>	5%
D	<div style="width: 6%;"></div>	6%
E	<div style="width: 11.2%;"></div>	11.2%

63.8% of users answered this question correctly

Session score = 37.5%

## RCGP curriculum

15.10 - Skin Problems

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He complains of feeling generally 'run-down' but review of systems is unremarkable. What is the most likely underlying cause?



- A. Vasculitis
- B. Erythema multiforme
- C. Necrotising fasciitis
- D. Kaposi sarcoma



- E. Venous eczema

Kaposi sarcoma may cause similar skin changes to the larger lesions but would not typically cause petechiae.

Vasculitis is commonly limited to the skin and may be caused by infections, drugs, autoimmune disorders and malignancy.

## Vasculitides



### Large vessel

- temporal arteritis
- Takayasu's arteritis

### Medium vessel

- polyarteritis nodosa
- Kawasaki disease

### Small vessel

- ANCA-associated vasculitides (Wegener's\*, Churg-Strauss\*, microscopic polyangiitis)
- Henoch-Schonlein purpura
- cryoglobulinaemic vasculitis

\*may also affect medium-sized vessels

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### Question 9 of 181



A 15-year-old male returns to the surgery for review. He has a past history of acne and is currently treated with oral lymecycline. There has been no response to treatment and examination reveals evidence of scarring on his face. What is the most suitable treatment?

- A. Oral doxycycline
- B. Oral cyproterone acetate
- ✓ C. Referral for oral retinoin
- D. Referral for UV light therapy
- ✗ E. Topical retinoids

#### Question stats

A	3.4%
B	1.7%
C	78.9%
D	2.3%
E	13.6%

78.9% of users answered this question correctly

Session score = 33.3%

Patients with scarring should be referred for oral retinoin

#### Acne vulgaris: management

Acne vulgaris is a common skin disorder which usually occurs in adolescence. It typically affects the face, neck and upper trunk and is characterised by the obstruction of the pilosebaceous follicles with keratin plugs which results in comedones, inflammation and pustules.

Acne may be classified into mild, moderate or severe:

- mild: open and closed comedones with or without sparse inflammatory lesions
- moderate acne: widespread non-inflammatory lesions and numerous papules and pustules
- severe acne: extensive inflammatory lesions, which may include nodules, pitting, and scarring

A simple step-up management scheme often used in the treatment of acne is as follows:

- single topical therapy (topical retinoids, benzyl peroxide)
- topical combination therapy (topical antibiotic, benzoyl peroxide, topical retinoid)
- oral antibiotics: e.g. Oxytetracycline, doxycycline. Improvement may not be seen for 3-4 months. Minocycline is now considered less appropriate due to the possibility of irreversible pigmentation. Gram negative folliculitis may occur as a complication of long-term antibiotic use - high-dose oral trimethoprim is effective if this occurs
- oral isotretinoin: only under specialist supervision

There is no role for dietary modification in patients with acne

#### RCGP curriculum

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#### External links

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Acne vulgaris guidelines

Rate question:









# Question 10 of 181



An 84-year-old woman with a history of ischaemic heart disease is reviewed in a nursing home. She has developed tense blistering lesions on her legs. Each lesion is around 1 to 3 cm in diameter and she reports that they are slightly pruritic. Examination of her mouth and vulva is unremarkable. What is the most likely diagnosis?

- A. Pemphigus
- B. Drug reaction to aspirin
-  C. Epidermolysis bullosa
- D. Scabies
-  E. Bullous pemphigoid

## Blisters/bullae

- no mucosal involvement (in exams at least\*): bullous pemphigoid
- mucosal involvement: pemphigus vulgaris

## Bullous pemphigoid

Bullous pemphigoid is an autoimmune condition causing sub-epidermal blistering of the skin. This is secondary to the development of antibodies against hemidesmosomal proteins BP180 and BP230

Bullous pemphigoid is more common in elderly patients. Features include

- itchy, tense blisters typically around flexures
- the blisters usually heal without scarring
- mouth is usually spared\*

## Skin biopsy






- immunofluorescence shows IgG and C3 at the dermoepidermal junction

## Management

- referral to dermatologist for biopsy and confirmation of diagnosis
- oral corticosteroids are the mainstay of treatment
- topical corticosteroids, immunosuppressants and antibiotics are also used

\*in reality around 10-50% of patients have a degree of mucosal involvement. It would however be unusual for an exam question to mention mucosal involvement

## Question stats

A		10.8%
B		2.8%
C		6%
D		0.6%
E		79.7%

79.7% of users answered this question correctly

Session score = 30%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Bullous pemphigoid

[British Association of Dermatologists](#)

Bullous pemphigoid guidelines



as it is seen as a classic differentiating feature between pemphigoid and pemphigus.

**Rate question:**

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**Question 6 of 231**


A 25-year-old man presents with a widespread rash over his body. The torso and limbs are covered with multiple erythematous lesions less than 1 cm in diameter which in parts are covered by a fine scale. You note that two weeks earlier he was seen with to a sore throat when it was noted that he had exudative tonsillitis. Other than a history of asthma he is normally fit and well. What is the most likely diagnosis?

- A. Pityriasis Rosea
- B. Pityriasis versicolor
- C. Syphilis
- D. Discoid eczema
- E. **Guttate psoriasis**


**Question stats**

<b>A</b>		14.1%
<b>B</b>		8.3%
<b>C</b>		1.3%
<b>D</b>		6.7%
<b>E</b>		69.6%

69.6% of users answered this question correctly

Session score = 66.7%

**Psoriasis: guttate**

Guttate psoriasis is more common in children and adolescents. It may be precipitated by a streptococcal infection 2-4 weeks prior to the lesions appearing

**Features**

- tear drop papules on the trunk and limbs

**Management**

- most cases resolve spontaneously within 2-3 months
- there is no firm evidence to support the use of antibiotics to eradicate streptococcal infection
- topical agents as per psoriasis
- UVB phototherapy
- tonsillectomy may be necessary with recurrent episodes

**Rate question:**
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[Dermnet NZ](#)

Guttate psoriasis



# Question 11 of 181



A 26-year-old male presents with a rash. Examination reveals erythematous oval lesions on his back and upper arms which have a slight scale just inside the edge. They vary in size from 1 to 5 cm in diameter. What is the most likely diagnosis?



A. Lichen planus

B. Guttate psoriasis

C. Lichen sclerosus



D. Pityriasis rosea

E. Pityriasis versicolor

The skin lesions seen in pityriasis rosea are generally larger than those found in guttate psoriasis and scaling is typically confined to the edges

## Pityriasis rosea

### Overview

- cause unknown, herpes hominis virus 7 (HHV-7) a possibility
- tends to affect young adults

### Features

- herald patch (usually on trunk)
- followed by erythematous, oval, scaly patches which follow a characteristic distribution with the longitudinal diameters of the oval lesions running parallel to the line of Langer. This may produce a 'fir-tree' appearance

### Management

- self-limiting, usually disappears after 4-6 weeks

Rate question:

### Question stats

A		5.7%
B		28%
C		2.3%
D		40.3%
E		23.7%

40.3% of users answered this question correctly

Session score = 27.3%

### RCGP curriculum

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### External links

[DermNet NZ](#)

Picture of pityriasis rosea



# Question 12 of 181



An elderly man complains about the appearance of his nose:



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Sarcoidosis
- B. Basal cell carcinoma
- C. Systemic lupus erythematosus
- D. Alcohol excess
- E. **Acne rosacea**



This man has a rhinophyma, a complication of acne rosacea.

## Acne rosacea

Acne rosacea is a chronic skin disease of unknown aetiology

### Features

- typically affects nose, cheeks and forehead
- flushing is often first symptom
- telangiectasia are common
- later develops into persistent erythema with papules and pustules
- rhinophyma
- ocular involvement: blepharitis

### Question stats

A	6.3%
B	4.5%
C	1.7%
D	8.3%
E	79.1%

79.1% of users answered this question correctly

Session score = 33.3%

### RCGP curriculum

15.10 - Skin Problems

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### External links

[Clinical Knowledge Summaries](#)

Rosacea guidelines



## Management

- topical metronidazole may be used for mild symptoms (i.e. Limited number of papules and pustules, no plaques)
- more severe disease is treated with systemic antibiotics e.g. Oxytetracycline
- recommend daily application of a high-factor sunscreen
- camouflage creams may help conceal redness
- laser therapy may be appropriate for patients with prominent telangiectasia

### Rate question:

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### Question 13 of 181



A 62-year-old with a history of acne rosacea presents for advice regarding treatment. Which one of the following interventions has the least role in management?



A. Camouflage creams

B. Topical metronidazole



C. Low-dose topical corticosteroids

D. Laser therapy

E. Use of high-factor sun block

#### Question stats

A	6.6%
B	6.9%
C	62.7%
D	16.4%
E	7.4%

62.7% of users answered this question correctly

Session score = 30.8%

### Acne rosacea

Acne rosacea is a chronic skin disease of unknown aetiology

#### Features

- typically affects nose, cheeks and forehead
- flushing is often first symptom
- telangiectasia are common
- later develops into persistent erythema with papules and pustules
- rhinophyma
- ocular involvement: blepharitis

#### Management

- topical metronidazole may be used for mild symptoms (i.e. Limited number of papules and pustules, no plaques)
- more severe disease is treated with systemic antibiotics e.g. Oxytetracycline
- recommend daily application of a high-factor sunscreen
- camouflage creams may help conceal redness
- laser therapy may be appropriate for patients with prominent telangiectasia

#### Rate question:

#### RCGP curriculum

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#### External links

[Clinical Knowledge Summaries](#)  
Rosacea guidelines



### Question 14 of 181



A 26-year-old man who is HIV positive is noted to have developed seborrhoeic dermatitis. Which of the following two complications are most associated with this condition?



- A. Alopecia and otitis externa
- B. **Blepharitis and otitis externa**
- C. Photosensitivity and alopecia
- D. Photosensitivity and blepharitis
- E. Blepharitis and alopecia

Alopecia is not commonly seen in seborrhoeic dermatitis, but may develop if a severe secondary infection develops

### Seborrhoeic dermatitis in adults

Seborrhoeic dermatitis in adults is a chronic dermatitis thought to be caused by an inflammatory reaction related to a proliferation of a normal skin inhabitant, a fungus called *Malassezia furfur* (formerly known as *Pityrosporum ovale*). It is common, affecting around 2% of the general population

#### Features

- eczematous lesions on the sebum-rich areas: scalp (may cause dandruff), periorbital, auricular and nasolabial folds
- otitis externa and blepharitis may develop

#### Associated conditions include

- HIV
- Parkinson's disease

#### Scalp disease management

- over the counter preparations containing zinc pyrithione ('Head & Shoulders') and tar ('Neutrogena T/Gel') are first-line
- the preferred second-line agent is ketoconazole
- selenium sulphide and topical corticosteroid may also be useful

#### Face and body management

- topical antifungals: e.g. Ketoconazole
- topical steroids: best used for short periods
- difficult to treat - recurrences are common

**Rate question:**

### Question stats

A		7.7%
B		62.1%
C		6.4%
D		7.1%
E		16.8%

62.1% of users answered this question correctly

Session score = 35.7%

### RCGP curriculum

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### External links

[DermNet NZ](#)

Overview and pictures of seborrhoeic dermatitis

[Clinical Knowledge Summaries](#)

Seborrhoeic dermatitis guidelines







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# Question 15 of 181



Which one of the following statements regarding acne vulgaris is incorrect?

- A. Follicular epidermal hyperproliferation results in obstruction of the pilosebaceous follicle
- B. Acne vulgaris affects at least 80% of teenagers
-  C. **Propionibacterium acnes is an anaerobic bacterium**
- D. Typical lesions include comedones and pustules
-  E. **Beyond the age of 25 years acne vulgaris is more common in males**

Acne is actually more common in females after the age of 25 years

## Acne vulgaris

Acne vulgaris is a common skin disorder which usually occurs in adolescence. It typically affects the face, neck and upper trunk and is characterised by the obstruction of the pilosebaceous follicle with keratin plugs which results in comedones, inflammation and pustules.

### Epidemiology

- affects around 80-90% of teenagers, 60% of whom seek medical advice
- acne may also persist beyond adolescence, with 10-15% of females and 5% of males over 25 years old being affected

### Pathophysiology is multifactorial

- follicular epidermal hyperproliferation resulting in the formation of a keratin plug. This in turn causes obstruction of the pilosebaceous follicle. Activity of sebaceous glands may be controlled by androgen, although levels are often normal in patients with acne
- colonisation by the anaerobic bacterium *Propionibacterium acnes*
- inflammation

**Rate question:**

### Question stats

A		7.3%
B		28.7%
C		7.3%
D		3.2%
E		53.5%

53.5% of users answered this question correctly

Session score = 33.3%

### RCGP curriculum

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### Question 16 of 181



A 54-year-old woman presents with an unsightly toenail. Nail scrapings demonstrate dermatophyte infection. What is the treatment of choice?



- A. Oral terbinafine for 12 weeks
- B. Oral itraconazole for 4 weeks
- C. Topical itraconazole for 2 weeks
- D. Topical amorolfine for 6 weeks
- E. Oral itraconazole for 1 weeks

#### Question stats

A	<div style="width: 82.2%;"></div>	82.2%
B	<div style="width: 4.4%;"></div>	4.4%
C	<div style="width: 3.1%;"></div>	3.1%
D	<div style="width: 9.7%;"></div>	9.7%
E	<div style="width: 0.7%;"></div>	0.7%

82.2% of users answered this question correctly

Session score = 37.5%

### Fungal nail infections

Onychomycosis is fungal infection of the nails. This may be caused by

- dermatophytes - mainly *Trichophyton rubrum*, accounts for 90% of cases
- yeasts - such as *Candida*
- non-dermatophyte moulds

#### Features

- 'unsightly' nails are a common reason for presentation
- thickened, rough, opaque nails are the most common finding

#### Investigation

- nail clippings
- scrapings of the affected nail

#### Management

- treatment is successful in around 50-80% of people
- diagnosis should be confirmed by microbiology before starting treatment
- dermatophyte infection: oral terbinafine is currently recommended first-line with oral itraconazole as an alternative. Six weeks - 3 months therapy is needed for fingernail infections whilst toenails should be treated for 3 - 6 months
- *Candida* infection: mild disease should be treated with topical antifungals (e.g. Amorolfine) whilst more severe infections should be treated with oral itraconazole for a period of 12 weeks

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Fungal nail infections

**Rate question:**







# Question 17 of 181



A 19-year-old man presents as he has developed a number of skin lesions similar to the one below:



You advise him to use regular emollients to control the itch and scale. What is the most appropriate first-line management?



- A. Topical steroid or combined topical steroid/dithranol
- B. Topical dithranol
- C. Topical coal tar or topical calcipotriol
- D. Topical calcipotriol or combined topical steroid/dithranol



- E. Topical steroid or combined topical steroid/calcipotriol

## Question stats

A	12%
B	13.3%
C	12%
D	18.8%
E	43.9%

43.9% of users answered this question correctly

Session score = 35.3%

## RCGP curriculum

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## External links

[SIGN](#)

2010 Psoriasis guidelines

## Psoriasis: management

SIGN released guidelines in 2010 on the management of psoriasis and psoriatic arthropathy. Please see the link for more details.

### Chronic plaque psoriasis

- regular emollients may help to reduce scale loss and reduce pruritus
- for acute control SIGN recommend: 'Short term intermittent use of a potent topical corticosteroid or a combined potent corticosteroid plus calcipotriol

ointment is recommended to gain rapid improvement in plaque psoriasis.'

- 'For long term topical treatment of plaque psoriasis a vitamin D analogue (e.g. Calcipotriol) is recommended.'
- 'If a vitamin D analogue is ineffective or not tolerated then consider coal tar (solution, cream or lotion), tazarotene gel, or short contact dithranol (30 minute exposure in patients with a small number of relatively large plaques of psoriasis).



## Steroids in psoriasis

- topical steroids are commonly used in flexural psoriasis and there is also a role for mild steroids in facial psoriasis. If steroids are ineffective for these conditions vitamin D analogues or tacrolimus ointment should be used second line
- SIGN caution against the long term use of potent or very potent topical steroids due to the risk of side-effects

## Scalp psoriasis

- for short term control SIGN recommend either the use of potent topical corticosteroids or a combination of a potent corticosteroid and a vitamin D

## analogue

- 'For patients with thick scaling of the scalp, initial treatment with overnight application of salicylic acid, tar preparations, or oil preparations (eg olive oil, coconut oil) to remove thick scale is recommended.

## Secondary care management

### Phototherapy

- narrow band ultraviolet B light (311-313nm) is now the treatment of choice
- photochemotherapy is also used - psoralen + ultraviolet A light (PUVA)
- adverse effects: skin ageing, squamous cell cancer (not melanoma)

### Systemic therapy

- methotrexate: useful if associated joint disease
- ciclosporin
- systemic retinoids
- biological agents: infliximab, etanercept and adalimumab
- ustekinumab (IL-12 and IL-23 blocker) is showing promise in early trials

### Mechanism of action of commonly used drugs:

- coal tar: probably inhibit DNA synthesis
- calcipotriol: vitamin D analogue which reduces epidermal proliferation and restores a normal horny layer
- dithranol: inhibits DNA synthesis, wash off after 30 mins, SE: burning, staining

### Rate question:



## Question 18 of 181





A 7-year-old boy with a history of atopic eczema is brought to the surgery. Overnight he has developed a painful blistering rash affecting his face and neck. His temperature is 38.1deg.



Image used on license from [DermNet NZ](#)



Which one of the following is most likely to be responsible for this presentation?

- A. Varicella zoster virus
- B. *Streptococcus pneumoniae*
- C. Pox virus
-  D. *Staphylococcus aureus*
-  E. *Herpes simplex virus*

The widespread nature of the rash and systemic upset points away from a diagnosis of impetigo.

### Eczema herpeticum

Eczema herpeticum describes a severe primary infection of the skin by herpes simplex virus 1 or 2. It is more commonly seen in children with atopic eczema. As it is potentially life threatening children should be admitted for IV aciclovir

Rate question:

### Question stats

A	5.1%
B	2.1%
C	1.2%
D	34.6%
E	57%

57% of users answered this question correctly

Session score = 33.3%

### RCGP curriculum

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# Question 19 of 181



Which one of the following statements regarding hirsutism is correct?

- A. Cushing's syndrome is the most common cause
- B. Topical eflornithine may be safely used during pregnancy
-  C. **Weight loss may make hirsutism worse in obese patients**
- D. The Ferriman-Gallwey scoring system is used to assess the psychological impact of hirsutism
-  E. **Co-cyprindiol (Dianette) may a useful treatment for patients moderate-severe hirsutism**

Polycystic ovarian syndrome is by far the most common cause in women.

## Hirsutism and hypertrichosis

/hirsutism is often used to describe androgen-dependent hair growth in women, with hypertrichosis being used for androgen-independent hair growth

Polycystic ovarian syndrome is the most common causes of hirsutism. Other causes include:

- Cushing's syndrome
- congenital adrenal hyperplasia
- androgen therapy
- obesity: due to peripheral conversion oestrogens to androgens
- adrenal tumour
- androgen secreting ovarian tumour
- drugs: phenytoin

Assessment of hirsutism






- Ferriman-Gallwey scoring system: 9 body areas are assigned a score of 0 - 4, a score > 15 is considered to indicate moderate or severe hirsutism

Management of hirsutism

- advise weight loss if overweight
- cosmetic techniques such as waxing/bleaching - not available on the NHS
- consider using combined oral contraceptive pills such as co-cyprindiol (Dianette) or ethinylestradiol and drospirenone (Yasmin). Co-cyprindiol should not be used long-term due to the increased risk of venous thromboembolism
- facial hirsutism: topical eflornithine - contraindicated in pregnancy and breast-feeding

Causes of hypertrichosis

## Question stats

A		9.6%
B		5.6%
C		4.3%
D		12.2%
E		68.4%

68.4% of users answered this question correctly

Session score = 31.6%

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## External links

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Hirsutism

[DermNet NZ](#)

Hirsutism



- drugs: minoxidil, ciclosporin, diazoxide
- congenital hypertrichosis lanuginosa, congenital hypertrichosis terminalis
- porphyria cutanea tarda
- anorexia nervosa

**Rate question:**

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**Question 20 of 181**


Which of the following is least associated with acanthosis nigricans?

- A. Gastric adenocarcinoma
- B. Cushing's disease
- C. Polycystic ovarian syndrome
- ✓ D. **Anorexia nervosa**
- E. Acromegaly

**Question stats**

<b>A</b>		7.7%
<b>B</b>		6.5%
<b>C</b>		10.2%
<b>D</b>		63.6%
<b>E</b>		11.9%

63.6% of users answered this question correctly

Session score = 35%

**Acanthosis nigricans**

Describes symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin

**Causes**

- gastrointestinal cancer
- insulin-resistant diabetes mellitus
- obesity
- polycystic ovarian syndrome
- acromegaly
- Cushing's disease
- hypothyroidism
- familial
- Prader-Willi syndrome
- drugs: oral contraceptive pill, nicotinic acid

**RCGP curriculum**

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**External links**

[DermNet NZ](#)

Acanthosis nigricans

**Rate question:**



**Question 7 of 231**


Please look at the image below:



Image used on license from [DermNet NZ](#)



What is the most likely diagnosis?



A. **Plaque psoriasis**



B. **Atopic eczema**

C. Bowen's disease

D. Flexural psoriasis

E. Tinea corporis

**Question stats**

A	<div style="width: 86.2%;"></div>	86.2%
B	<div style="width: 3.5%;"></div>	3.5%
C	<div style="width: 0.4%;"></div>	0.4%
D	<div style="width: 9.4%;"></div>	9.4%
E	<div style="width: 0.5%;"></div>	0.5%

86.2% of users answered this question correctly

Session score = 57.1%

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2010 Psoriasis guidelines

[DermNet NZ](#)

Scalp psoriasis

**Psoriasis**

Psoriasis is a common and chronic skin disorder. It generally presents with red, scaly patches on the skin although it is now recognised that patients with psoriasis are at increased risk of arthritis and cardiovascular disease.

**Pathophysiology**

- multifactorial and not yet fully understood
- genetic: associated HLA-B13, -B17, and -Cw6. Strong concordance (70%) in identical twins
- immunological: abnormal T cell activity stimulates keratinocyte proliferation. There is increasing evidence this may be mediated by a novel



group of T helper cells producing IL-17, designated Th17. These cells seem to be a third T-effector cell subset in addition to Th1 and Th2

- environmental: it is recognised that psoriasis may be worsened (e.g. Skin trauma, stress), triggered (e.g. Streptococcal infection) or improved (e.g. Sunlight) by environmental factors

#### Recognised subtypes of psoriasis

- plaque psoriasis: the most common sub-type resulting in the typical well demarcated red, scaly patches affecting the extensor surfaces, sacrum and scalp
- flexural psoriasis: in contrast to plaque psoriasis the skin is smooth
- guttate psoriasis: transient psoriatic rash frequently triggered by a streptococcal infection. Multiple red, teardrop lesions appear on the body
- pustular psoriasis: commonly occurs on the palms and soles

#### Other features

- nail signs: pitting, onycholysis
- arthritis

#### Complications

- psoriatic arthropathy (around 10%)
- increased incidence of metabolic syndrome
- increased incidence of cardiovascular disease
- psychological distress

**Rate question:**



# Question 21 of 181



A 64-year-old woman presents with severe mucosal ulceration associated with the development of blistering lesions over her torso and arms. On examination the blisters are flaccid and easily ruptured when touched. What is the most likely diagnosis?



- A. Pemphigus vulgaris
- B. Pemphigoid
- C. Dermatitis herpetiformis
- D. Psoriasis



- E. Epidermolysis bullosa

## Blisters/bullae

- no mucosal involvement: bullous pemphigoid
- mucosal involvement: pemphigus vulgaris

## Pemphigus vulgaris

Pemphigus vulgaris is an autoimmune disease caused by antibodies directed against desmoglein, a cadherin-type epithelial cell adhesion molecule. It is more common in the Ashkenazi Jewish population

### Features

- mucosal ulceration is common and often the presenting symptom. Oral involvement is seen in 50-70% of patients
- skin blistering - flaccid, easily ruptured vesicles and bullae. Lesions are typically painful but not itchy. These may develop months after the initial mucosal symptoms. Nikolsky's describes the spread of bullae following application of horizontal, tangential pressure to the skin
- acantholysis on biopsy

### Management

- steroids
- immunosuppressants

### Rate question:

## Question stats

A	<div style="width: 68.7%;"></div>	68.7%
B	<div style="width: 19.1%;"></div>	19.1%
C	<div style="width: 1.9%;"></div>	1.9%
D	<div style="width: 0.1%;"></div>	0.1%
E	<div style="width: 10.2%;"></div>	10.2%

68.7% of users answered this question correctly

Session score = 33.3%

## RCGP curriculum

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## External links

[DermNet NZ](#)

Picture of widespread pemphigus vulgaris

[DermNet NZ](#)

Picture of oral pemphigus vulgaris













# Question 22 of 181



An 18-year-old man presents due a number of itchy skin lesions on his arms and trunk. On examination the lesions are coppery brown in colour and scaly. A diagnosis of pityriasis versicolor is suspected. Which one of the following is the most appropriate treatment?

- A. Topical dapsone
- B. Topical fusidic acid
-  C. **Topical selenium sulphide**
-  D. Topical hydrocortisone
- E. Phototherapy with UVB

## Question stats

A		12.1%
B		5.9%
C		65.5%
D		14%
E		2.5%

65.5% of users answered this question correctly

Session score = 31.8%

## Pityriasis versicolor

Pityriasis versicolor, also called tinea versicolor, is a superficial cutaneous fungal infection caused by *Malassezia furfur* (formerly termed *Pityrosporum ovale*)

### Features

- most commonly affects trunk
- patches may be hypopigmented, pink or brown (hence versicolor)
- scale is common
- mild pruritus

### Predisposing factors

- occurs in healthy individuals
- immunosuppression
- malnutrition
- Cushing's

### Management

- topical antifungal e.g. terbinafine or selenium sulphide
- if extensive disease or failure to respond to topical treatment then consider oral itraconazole

### Rate question:

## RCGP curriculum

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## External links

[DermNet NZ](#)

Picture of pityriasis versicolor 1

[DermNet NZ](#)

Picture of pityriasis versicolor 2

[DermNet NZ](#)

Hypopigmentation post pityriasis versicolor



**Question 23 of 181**


A 19-year-old female who has just started work as a cleaner presents with a rash on her hands. On examination there is a generalised erythematous rash on the dorsum of both hands. There is no evidence of scaling or vesicles. What is the most likely diagnosis?



- A. Tinea manuum
- B. **Irritant contact dermatitis**
- C. Allergic contact dermatitis
- D. Ichthyosis vulgaris
- E. Pustular psoriasis

The strong alkalis and acids found in cleaning solutions are common triggers of irritant contact dermatitis

**Contact dermatitis**

There are two main types of contact dermatitis

- irritant contact dermatitis: common - non-allergic reaction due to weak acids or alkalis (e.g. detergents). Often seen on the hands. Erythema is typical, crusting and vesicles are rare
- allergic contact dermatitis: type IV hypersensitivity reaction. Uncommon - often seen on the head following hair dyes. Presents as an acute weeping eczema which predominately affects the margins of the hairline rather than the hairy scalp itself. Topical treatment with a potent steroid is indicated

Cement is a frequent cause of contact dermatitis. The alkaline nature of cement may cause an irritant contact dermatitis whilst the dichromates in cement also can cause an allergic contact dermatitis

**Rate question:**

**Question stats**

<b>A</b>	<div style="width: 0.7%;"></div>	0.7%
<b>B</b>	<div style="width: 86.5%;"></div>	86.5%
<b>C</b>	<div style="width: 12.3%;"></div>	12.3%
<b>D</b>	<div style="width: 0.3%;"></div>	0.3%
<b>E</b>	<div style="width: 0.2%;"></div>	0.2%

86.5% of users answered this question correctly

Session score = 34.8%

**RCGP curriculum**

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**Question 24 of 181**


You review a 50-year-old man who has psoriasis. Which one of the following medications is most likely exacerbate his condition?



- A. Nicorandil
- B. Simvastatin
- C. **Verapamil**
- D. **Atenolol**
- E. Isosorbide mononitrate

**Question stats**

<b>A</b>		15.4%
<b>B</b>		10.2%
<b>C</b>		16.3%
<b>D</b>		51.2%
<b>E</b>		6.9%

51.2% of users answered this question correctly

Session score = 33.3%

**Psoriasis: exacerbating factors**

The following factors may exacerbate psoriasis:

- trauma
- alcohol
- drugs: beta blockers, lithium, antimalarials (chloroquine and hydroxychloroquine), NSAIDs and ACE inhibitors
- withdrawal of systemic steroids

**RCGP curriculum**

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**Rate question:**



### Question 25 of 181



Which one of the following complications is most associated with psoralen + ultraviolet A light (PUVA) therapy?



A. Squamous cell cancer

B. Osteoporosis



C. Basal cell cancer

D. Dermoid cysts

E. Malignant melanoma

The most significant complication of PUVA therapy for psoriasis is squamous cell skin cancer.

### Psoriasis: management

SIGN released guidelines in 2010 on the management of psoriasis and psoriatic arthropathy. Please see the link for more details.

Chronic plaque psoriasis

- regular emollients may help to reduce scale loss and reduce pruritus
- for acute control SIGN recommend: 'Short term intermittent use of a potent topical corticosteroid or a combined potent corticosteroid plus calcipotriol

ointment is recommended to gain rapid improvement in plaque psoriasis.'

- 'For long term topical treatment of plaque psoriasis a vitamin D analogue (e.g. Calcipotriol) is recommended.'
- 'If a vitamin D analogue is ineffective or not tolerated then consider coal tar (solution, cream or lotion), tazarotene gel, or short contact dithranol (30 minute exposure in patients with a small number of relatively large plaques of psoriasis).

Steroids in psoriasis

- topical steroids are commonly used in flexural psoriasis and there is also a role for mild steroids in facial psoriasis. If steroids are ineffective for these conditions vitamin D analogues or tacrolimus ointment should be used second line
- SIGN caution against the long term use of potent or very potent topical steroids due to the risk of side-effects

Scalp psoriasis

- for short term control SIGN recommend either the use of potent topical corticosteroids or a combination of a potent corticosteroid and a vitamin D

analogue

### Question stats

A		61.1%
B		3.8%
C		12.9%
D		2.8%
E		19.4%

61.1% of users answered this question correctly

Session score = 32%

### RCGP curriculum

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### External links

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2010 Psoriasis guidelines



- 'For patients with thick scaling of the scalp, initial treatment with overnight application of salicylic acid, tar preparations, or oil preparations (eg olive oil, coconut oil) to remove thick scale is recommended.

## Secondary care management

### Phototherapy

- narrow band ultraviolet B light (311-313nm) is now the treatment of choice
- photochemotherapy is also used - psoralen + ultraviolet A light (PUVA)
- adverse effects: skin ageing, squamous cell cancer (not melanoma)

### Systemic therapy

- methotrexate: useful if associated joint disease
- ciclosporin
- systemic retinoids
- biological agents: infliximab, etanercept and adalimumab
- ustekinumab (IL-12 and IL-23 blocker) is showing promise in early trials

### Mechanism of action of commonly used drugs:

- coal tar: probably inhibit DNA synthesis
- calcipotriol: vitamin D analogue which reduces epidermal proliferation and restores a normal horny layer
- dithranol: inhibits DNA synthesis, wash off after 30 mins, SE: burning, staining

### Rate question:



## Question 26 of 181



A 60-year-old man asks you to have a look at a 'sore' on his right ear.



Image used on license from [DermNet NZ](#) and with the kind permission of Prof Raimo Suhonen

It has been present for around 6 months and is not painful. What is the most likely diagnosis?

- A. Fungal otitis externa
- ✓ B. Actinic keratosis
- C. Pyogenic granuloma
- D. Basal cell carcinoma
- ✗ E. Chondrodermatitis nodularis helcis

Chondrodermatitis nodularis helcis is usually painful.

### Actinic keratoses

Actinic, or solar, keratoses (AK) is a common premalignant skin lesion that develops as a consequence of chronic sun exposure

#### Features

- small, crusty or scaly, lesions
- may be pink, red, brown or the same colour as the skin
- typically on sun-exposed areas e.g. temples of head
- multiple lesions may be present

#### Question stats

A	1.4%
B	50.7%
C	3.6%
D	9.1%
E	35.2%

50.7% of users answered this question correctly

Session score = 30.8%

#### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

#### External links

[British Association of Dermatologists](#)

2007 Actinic keratoses guidelines

[DermNet NZ](#)

Actinic keratoses



Management options include

- prevention of further risk: e.g. sun avoidance, sun cream
- fluorouracil cream: typically a 2 to 3 week course. The skin will become red and inflamed - sometimes topical hydrocortisone is given following fluorouracil to help settle the inflammation
- topical diclofenac: may be used for mild AKs. Moderate efficacy but much fewer side-effects
- topical imiquimod: trials have shown good efficacy
- cryotherapy
- curettage and cautery

**Rate question:**

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# Question 27 of 181



A 59-year-old man presents with a new skin lesion which has developed over the past few months:



Image used on license from [DermNet NZ](#)

You plan to refer the patient to dermatology. What is the most likely diagnosis?

- A. Malignant melanoma
- B. Actinic keratosis
- C. **Bowen's disease**
- D. Basal cell carcinoma
- E. Seborrhoeic keratosis



## Question stats

A	30.2%
B	5.2%
C	54.6%
D	8.1%
E	1.9%

54.6% of users answered this question correctly

Session score = 29.6%

## RCGP curriculum

15.10 - Skin Problems

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## External links

[DermNet NZ](#)

Bowen's disease

## Bowen's disease

Bowen's disease is a type of intraepidermal squamous cell carcinoma. More common in elderly females. There is around a 3% chance of developing invasive skin cancer

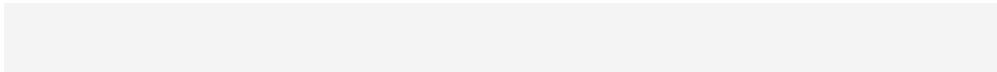
### Features

- red, scaly patches

- often occur on the lower limbs

**Rate question:**







## Question 28 of 181





Please look at the image below:



Image used on license from [DermNet NZ](#)

Which one of the following is this patient most likely to go on and develop?

- A. Parkinson's disease
- B. Hypothyroidism
-  C. Rheumatoid arthritis
- D. Sarcoidosis
-  E. Metabolic syndrome

Along with psoriatic arthritis, metabolic syndrome is one of the most common and significant complications of psoriasis.






### Psoriasis

Psoriasis is a common and chronic skin disorder. It generally presents with red, scaly patches on the skin although it is now recognised that patients with psoriasis are at increased risk of arthritis and cardiovascular disease.

#### Pathophysiology

- multifactorial and not yet fully understood
- genetic: associated HLA-B13, -B17, and -Cw6. Strong concordance (70%) in identical twins
- immunological: abnormal T cell activity stimulates keratinocyte

#### Question stats

A		10.3%
B		14.1%
C		33.1%
D		11.7%
E		30.7%

30.7% of users answered this question correctly

Session score = 28.6%

#### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

#### External links

[SIGN](#)

2010 Psoriasis guidelines

[DermNet NZ](#)

Scalp psoriasis



proliferation. There is increasing evidence this may be mediated by a novel group of T helper cells producing IL-17, designated Th17. These cells seem to be a third T-effector cell subset in addition to Th1 and Th2

- environmental: it is recognised that psoriasis may be worsened (e.g. Skin trauma, stress), triggered (e.g. Streptococcal infection) or improved (e.g. Sunlight) by environmental factors

#### Recognised subtypes of psoriasis

- plaque psoriasis: the most common sub-type resulting in the typical well demarcated red, scaly patches affecting the extensor surfaces, sacrum and scalp
- flexural psoriasis: in contrast to plaque psoriasis the skin is smooth
- guttate psoriasis: transient psoriatic rash frequently triggered by a streptococcal infection. Multiple red, teardrop lesions appear on the body
- pustular psoriasis: commonly occurs on the palms and soles

#### Other features

- nail signs: pitting, onycholysis
- arthritis

#### Complications

- psoriatic arthropathy (around 10%)
- increased incidence of metabolic syndrome
- increased incidence of cardiovascular disease
- psychological distress

**Rate question:**



# Question 29 of 181



A 34-year-old who has recently returned from a business trip to New York presents with a one-day history of a painful rash on his neck:



What is the most appropriate management?

- A. Topical fusidic acid
- ☒ B. Topical clotrimazole + hydrocortisone
- C. Oral aciclovir + prednisolone
- ☒ D. Oral aciclovir
- E. Send blood for antibodies to *Borrelia burgdorferi*

One of the main clues in the question is the combination of a rash with pain. Other than shingles, there are not many conditions which cause both.

Whilst there is some evidence that systemic steroids speed up the healing of shingles, consensus guidelines do not advocate their use as adverse effects probably outweigh potential benefits.

## Herpes zoster

### Question stats

A	10%
B	3.6%
C	8%
D	73.3%
E	5.1%

73.3% of users answered this question correctly

Session score = 27.6%

### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

### External links

[Clinical Knowledge Summaries](#)  
Shingles guidelines



Shingles is an acute, unilateral, painful blistering rash caused by reactivation of the Varicella Zoster Virus (VZV)

#### Management

- oral aciclovir

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# Question 30 of 181



A 30-year-old man is investigated for recurrent nose bleeds and iron deficiency anaemia. You notice a number of erythematous lesions on his skin:



Image used on license from [DermNet NZ](#)

What is the most likely underlying diagnosis?

- A. Peutz-Jeghers syndrome
- B. Alcohol excess
- ☒ C. Hereditary haemorrhagic telangiectasia
- D. Haemophilia A
- E. Idiopathic thrombocytopenic purpura

## Question stats

A	15%
B	3.9%
C	63.9%
D	2.8%
E	14.4%

63.9% of users answered this question correctly

Session score = 30%

## RCGP curriculum

15.10 - Skin Problems

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[Curriculum statement](#)

## External links

[DermNet NZ](#)

Hereditary haemorrhagic telangiectasia

[Postgraduate Medical Journal](#)

Review of HHT

## Hereditary haemorrhagic telangiectasia

Also known as Osler-Weber-Rendu syndrome, hereditary haemorrhagic telangiectasia (HHT) is an autosomal dominant condition characterised by (as the name suggests) multiple telangiectasia over the skin and mucous membranes. Twenty percent of cases occur spontaneously without prior family history.

There are 4 main diagnostic criteria. If the patient has 2 then they are said to have a possible diagnosis of HHT. If they meet 3 or more of the criteria they are said to have a definite diagnosis of HHT:

- epistaxis : spontaneous, recurrent nosebleeds
- telangiectases: multiple at characteristic sites (lips, oral cavity, fingers,



nose)

- visceral lesions: for example gastrointestinal telangiectasia (with or without bleeding), pulmonary arteriovenous malformations (AVM), hepatic AVM, cerebral AVM, spinal AVM
- family history: a first-degree relative with HHT

**Rate question:**

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## Question 8 of 231



A 60-year-old man asks you to have a look at a skin lesion:



Image used on license from [DermNet.NZ](http://DermNet.NZ)



What is the most likely diagnosis?



- A. Malignant melanoma
- B. Seborrhoeic keratosis
- C. Bowen's disease
- D. Dermatitis papulosa nigra
- E. Actinic keratosis

## Question stats

A	15.2%
B	63.3%
C	4.2%
D	8.9%
E	8.4%

63.3% of users answered this question correctly

Session score = 50%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet.NZ](http://DermNet.NZ)

Seborrhoeic keratoses

## Seborrhoeic keratoses

Seborrhoeic keratoses are benign epidermal skin lesions seen in older people.

## Features

- large variation in colour from flesh to light-brown to black
- have a 'stuck-on' appearance
- keratotic plugs may be seen on the surface

## Management

- reassurance about the benign nature of the lesion is an option



- options for removal include curettage, cryosurgery and shave biopsy

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# Question 31 of 181



A 78-year-old woman presents with a raised skin lesion on her face:



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- A. Keratoacanthoma
- ✓ B. Basal cell carcinoma
- C. Actinic keratosis
- ✗ D. Squamous cell carcinoma
- E. Malignant melanoma

## Question stats

A	10.3%
B	52.4%
C	17.6%
D	17.4%
E	2.2%

52.4% of users answered this question correctly

Session score = 29%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[DermNet NZ](#)

Basal cell carcinoma

## Basal cell carcinoma

Basal cell carcinoma (BCC) is one of the three main types of skin cancer. Lesions are also known as rodent ulcers and are characterised by slow-growth and local invasion. Metastases are extremely rare. BCC is the most common type of cancer in the Western world.

### Features

- many types of BCC are described. The most common type is nodular BCC, which is described here
- sun-exposed sites, especially the head and neck account for the majority of lesions



- initially a pearly, flesh-coloured papule with telangiectasia
- may later ulcerate leaving a central 'crater'

Management options:

- surgical removal
- curettage
- cryotherapy
- topical cream: imiquimod, fluorouracil
- radiotherapy

**Rate question:**

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**Question 32 of 181**


Which one of the following factors would predispose a patient to forming keloid scars?

- A. Having white skin
- B. Incisions along relaxed skin tension lines
- ✓ C. Being aged 20-40 years
- D. Being female
- ✗ E. Having a wound on the lower back

Keloid scars - more common in young, black, male adults

**Question stats**

A	1.9%
B	18.3%
C	45.2%
D	15.9%
E	18.7%

45.2% of users answered this question correctly

Session score = 28.1%

**Keloid scars**

Keloid scars are tumour-like lesions that arise from the connective tissue of a scar and extend beyond the dimensions of the original wound

Predisposing factors

- ethnicity: more common in people with dark skin
- occur more commonly in young adults, rare in the elderly
- common sites (in order of decreasing frequency): sternum, shoulder, neck, face, extensor surface of limbs, trunk

Keloid scars are less likely if incisions are made along relaxed skin tension lines\*

Treatment

- early keloids may be treated with intra-lesional steroids e.g. triamcinolone
- excision is sometimes required

\*Langer lines were historically used to determine the optimal incision line. They were based on procedures done on cadavers but have been shown to produce worse cosmetic results than when following skin tension lines

**Rate question:**

**RCGP curriculum**

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)



**Question 33 of 181**


A 34-year-old female presents to her GP due to a skin rash under her new wrist watch. An allergy to nickel is suspected. What is the best investigation?



- A. Skin prick test
- B. **Skin patch test**
- C. Skin biopsy
- D. Serum IgE
- E. Serum nickel antibodies

**Question stats**

<b>A</b>		13.8%
<b>B</b>		81.1%
<b>C</b>		0.2%
<b>D</b>		3%
<b>E</b>		1.9%

81.1% of users answered this question correctly

Session score = 30.3%

**Nickel dermatitis**

Nickel is a common cause allergic contact dermatitis and is an example of a type IV hypersensitivity reaction. It is often caused by jewellery such as watches

It is diagnosed by a skin patch test

**Rate question:**

**RCGP curriculum**

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)



### Question 34 of 181



A 62-year-old female is referred due to a long-standing ulcer above the right medial malleolus. Ankle-brachial pressure index readings are as follows:

Right	0.95
Left	0.95

To date it has been managed by the District Nurse with standard dressings. What is the most appropriate management to maximize the likelihood of the ulcer healing?



- A. Compression bandaging
- B. Intermittent pneumatic compression
- C. Hydrocolloid dressings
- D. Refer to vascular surgeon
- E. Topical flucloxacillin



Management of venous ulceration - compression bandaging

The ankle-brachial pressure index readings indicate a reasonable arterial supply and suggest the ulcers are venous in nature.

### Venous ulceration

Venous ulceration is typically seen above the medial malleolus

#### Investigations

- ankle-brachial pressure index (ABPI) is important in non-healing ulcers to assess for poor arterial flow which could impair healing
- a 'normal' ABPI may be regarded as between 0.9 - 1.2. Values below 0.9 indicate arterial disease. Interestingly, values above 1.3 may also indicate arterial disease, in the form of false-negative results secondary to arterial calcification (e.g. In diabetics)

#### Management

- compression bandaging, usually four layer (only treatment shown to be of real benefit)
- oral pentoxifylline, a peripheral vasodilator, improves healing rate
- small evidence base supporting use of flavinoids
- little evidence to suggest benefit from hydrocolloid dressings, topical growth factors, ultrasound therapy and intermittent pneumatic compression

#### Question stats

A	<div style="width: 73.7%;"></div>	73.7%
B	<div style="width: 3.2%;"></div>	3.2%
C	<div style="width: 12.1%;"></div>	12.1%
D	<div style="width: 10.5%;"></div>	10.5%
E	<div style="width: 0.4%;"></div>	0.4%

73.7% of users answered this question correctly

Session score = 29.4%

#### RCGP curriculum

15.10 - Skin Problems

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#### External links

[BMJ](#)

Management of venous leg ulcers



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## Question 35 of 181



A 5-week-old girl is brought to the surgery due to a rash on her scalp:



What is the most appropriate management?

- A. Referral to paediatric dermatologist
- B. Swab rash and prescribe topical fusidic acid
- ✓ C. Baby shampoo and baby oil
- D. Topical hydrocortisone
- ✗ E. Topical ketoconazole

## Question stats

A	1.1%
B	1.7%
C	80.8%
D	2.8%
E	13.6%

80.8% of users answered this question correctly

Session score = 28.6%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

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## Seborrhoeic dermatitis in children

Seborrhoeic dermatitis is a relatively common skin disorder seen in children. It typically affects the scalp ('Cradle cap'), nappy area, face and limb flexures.

Cradle cap is an early sign which may develop in the first few weeks of life. It is characterised by an erythematous rash with coarse yellow scales.

Management depends on severity

- mild-moderate: baby shampoo and baby oils
- severe: mild topical steroids e.g. 1% hydrocortisone

Seborrhoeic dermatitis in children tends to resolve spontaneously by around 8



months of age

**Rate question:**



# Question 36 of 181



A 41-year-old man presents with an itchy rash over his arms and abdomen. It has got gradually worse over the past three days.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- ☒ A. Scabies
- ☐ B. Pityriasis rosea
- ☒ C. Erythema multiforme
- ☐ D. Urticaria
- ☐ E. Guttate psoriasis

The linear burrows of the scabies mite are clearly seen on this image.

## Scabies

Scabies is caused by the mite *Sarcoptes scabiei* and is spread by prolonged skin contact. It typically affects children and young adults.

The scabies mite burrows into the skin, laying its eggs in the stratum corneum. The intense pruritus associated with scabies is due to a delayed type IV hypersensitivity reaction to mites/eggs which occurs about 30 days after the initial infection.

Features

## Question stats

A	<div style="width: 51.7%;"></div>	51.7%
B	<div style="width: 15.9%;"></div>	15.9%
C	<div style="width: 7.1%;"></div>	7.1%
D	<div style="width: 7%;"></div>	7%
E	<div style="width: 18.4%;"></div>	18.4%

51.7% of users answered this question correctly

Session score = 27.8%

## RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

## External links

[National Prescribing Centre](#)  
2008 Scabies guidelines

[Postgraduate Medical Journal](#)  
Review of scabies

[Postgraduate Medical Journal](#)  
Scabies management



widespread pruritus

- linear burrows on the side of fingers, interdigital webs and flexor aspects of the wrist
- in infants the face and scalp may also be affected
- secondary features are seen due to scratching: excoriation, infection

## Management

- permethrin 5% is first-line
- malathion 0.5% is second-line
- give appropriate guidance on use (see below)
- pruritus persists for up to 4-6 weeks post eradication

## Patient guidance on treatment (from Clinical Knowledge Summaries)

- avoid close physical contact with others until treatment is complete
- all household and close physical contacts should be treated at the same time, even if asymptomatic
- launder, iron or tumble dry clothing, bedding, towels, etc., on the first day of treatment to kill off mites.

The BNF advises to apply the insecticide to all areas, including the face and scalp, contrary to the manufacturer's recommendation. Patients should be given the following instructions:

- apply the insecticide cream or liquid to cool, dry skin
- pay close attention to areas between fingers and toes, under nails, armpit area, creases of the skin such as at the wrist and elbow
- allow to dry and leave on the skin for 8–12 hours for permethrin, or for 24 hours for malathion, before washing off
- reapply if insecticide is removed during the treatment period, e.g. If wash hands, change nappy, etc
- repeat treatment 7 days later

## Rate question:



# Question 37 of 181



A 34-year-old man comes to surgery. He has been generally unwell since an episode of diarrhoea four weeks ago, with joint pains, pain on passing water and a rash on the soles of his feet:



What does this rash likely represent?

- A. Pompholyx
- B. HIV-associated dermopathy
- C. Plantar pustular psoriasis
- D. Mosaic warts
- E. Keratoderma blennorrhagica



## Question stats

A	12.5%
B	11.7%
C	16.5%
D	4.9%
E	54.4%

54.4% of users answered this question correctly

Session score = 27%

## RCGP curriculum

15.10 - Skin Problems

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## External links

[DermNet NZ](#)

Picture of keratoderma blennorrhagica

## Reactive arthritis: features

Reactive arthritis is one of the HLA-B27 associated seronegative spondyloarthropathies. It encompasses Reiter's syndrome, a term which described a classic triad of urethritis, conjunctivitis and arthritis following a dysenteric illness during the Second World War. Later studies identified patients who developed symptoms following a sexually transmitted infection (post-STI, now sometimes referred to as sexually acquired reactive arthritis, SARA).

Reactive arthritis is defined as an arthritis that develops following an infection where the organism cannot be recovered from the joint.

## Features

- typically develops within 4 weeks of initial infection - symptoms generally



last around 4-6 months

- arthritis is typically an asymmetrical oligoarthritis of lower limbs
- dactylitis
- symptoms of urethritis
- eye: conjunctivitis (seen in 50%), anterior uveitis
- skin: circinate balanitis (painless vesicles on the coronal margin of the prepuce), keratoderma blenorrhagica (waxy yellow/brown papules on palms and soles)

Around 25% of patients have recurrent episodes whilst 10% of patients develop chronic disease

**Rate question:**

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# Question 38 of 181



A 35-year-old female presents with tender, erythematous nodules over her forearms. Blood tests reveal:

Calcium 2.78 mmol/l

What is the most likely diagnosis?



- A. Granuloma annulare
- B. Erythema nodosum
- C. Lupus pernio
- D. Erythema multiforme
- E. Necrobiosis lipoidica

The likely underlying diagnosis is sarcoidosis

## Erythema nodosum

### Overview

- inflammation of subcutaneous fat
- typically causes tender, erythematous, nodular lesions
- usually occurs over shins, may also occur elsewhere (e.g. forearms, thighs)
- usually resolves within 6 weeks
- lesions heal without scarring

### Causes

- infection: streptococci, TB, brucellosis
- systemic disease: sarcoidosis, inflammatory bowel disease, Behcet's
- malignancy/lymphoma
- drugs: penicillins, sulphonamides, combined oral contraceptive pill
- pregnancy

Rate question:

### Question stats

A	<div></div>	8.4%
B	<div></div>	70.1%
C	<div></div>	12.6%
D	<div></div>	5.3%
E	<div></div>	3.6%

70.1% of users answered this question correctly

Session score = 28.9%

### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

[Curriculum statement](#)

### External links

[DermNet NZ](#)

Erythema nodosum



**Question 39 of 181**


A patient presents to his GP following the development of an urticarial skin rash following the introduction of a new drug. Which one of the following is most likely to be responsible?



- A. Omeprazole
- B. Sodium valproate
- C. Aspirin
- D. Paracetamol
- E. Simvastatin

Aspirin is a common cause of urticaria

Although all medications can potentially cause urticaria it is commonly seen secondary to aspirin

**Drug causes of urticaria**

The following drugs commonly cause urticaria:

- aspirin
- penicillins
- NSAIDs
- opiates

**Rate question:**

**Question stats**

A	7.7%
B	22.5%
C	62.9%
D	0.7%
E	6.2%

62.9% of users answered this question correctly

Session score = 28.2%

**RCGP curriculum**

15.10 - Skin Problems

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[Curriculum statement](#)



### Question 40 of 181



The district nurses inform you that one of your patients has developed a pressure ulcer over the sacrum. The patient is elderly and frail but systemically well. Which one of the following should not be part of your management plan?

- A. Referral for surgical debridement
- B. Hydrocolloid dressings
- C. Referral to the tissue viability nurse
- D. Detailed documentation of the ulcer including a photograph
- E. Routine swabbing of the wound



#### Question stats

A		27.9%
B		5.3%
C		2.1%
D		2.1%
E		62.5%

62.5% of users answered this question correctly

Session score = 30%

### Pressure ulcers

The following is based on a 2009 NHS Best Practice Statement. Please see the link for further details. Some selected points are listed below. NICE also published guidelines in 2005.

Pressure ulcers develop in patients who are unable to move parts of their body due to illness, paralysis or advancing age. They typically develop over bony prominences such as the sacrum or heel. The following factors predispose to the development of pressure ulcers:

- malnourishment
- incontinence
- lack of mobility
- pain (leads to a reduction in mobility)

Grading of pressure ulcers - the following is taken from the European Pressure Ulcer Advisory Panel classification system.

<b>Grade 1</b>	Non-blanchable erythema of intact skin. Discolouration of the skin, warmth, oedema, induration or hardness may also be used as indicators, particularly on individuals with darker skin
<b>Grade 2</b>	Partial thickness skin loss involving epidermis or dermis, or both. The ulcer is superficial and presents clinically as an abrasion or blister
<b>Grade 3</b>	Full thickness skin loss involving damage to or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia.
<b>Grade 4</b>	Extensive destruction, tissue necrosis, or damage to muscle, bone or supporting structures with or without full thickness skin loss

#### Management

- a moist wound environment encourages ulcer healing. Hydrocolloid

#### RCGP curriculum

9 - Care of Older Adults

[Curriculum statement](#)

#### External links

[NHS](#)

Prevention and management of pressure ulcers

[NICE](#)

The prevention and treatment of pressure ulcers



dressings and hydrogels may help facilitate this. The use of soap should be discouraged to avoid drying the wound

- wound swabs should not be done routinely as the vast majority of pressure ulcers are colonised with bacteria. The decision to use systemic antibiotics should be taken on a clinical basis (e.g. Evidence of surrounding cellulitis)
- consider referral to the tissue viability nurse
- surgical debridement may be beneficial for selected wounds

**Rate question:**

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### Question 9 of 231

A 67-year-old man with a history of Parkinson's disease presents due to the development of an itchy, red rash on his neck, behind his ears and around the nasolabial folds. He had a similar flare up last winter but did not seek medical attention. What is the most likely diagnosis?



- A. Levodopa associated dermatitis
- B. **Seborrhoeic dermatitis**
- C. Flexural psoriasis
- D. Acne rosacea
- E. Fixed drug reaction to ropinirole

Seborrhoeic dermatitis is more common in patients with Parkinson's disease

#### Seborrhoeic dermatitis in adults

Seborrhoeic dermatitis in adults is a chronic dermatitis thought to be caused by an inflammatory reaction related to a proliferation of a normal skin inhabitant, a fungus called *Malassezia furfur* (formerly known as *Pityrosporum ovale*). It is common, affecting around 2% of the general population

#### Features

- eczematous lesions on the sebum-rich areas: scalp (may cause dandruff), periorbital, auricular and nasolabial folds
- otitis externa and blepharitis may develop

#### Associated conditions include

- HIV
- Parkinson's disease

#### Scalp disease management

- over the counter preparations containing zinc pyrithione ('Head & Shoulders') and tar ('Neutrogena T/Gel') are first-line
- the preferred second-line agent is ketoconazole
- selenium sulphide and topical corticosteroid may also be useful

#### Face and body management

- topical antifungals: e.g. Ketoconazole
- topical steroids: best used for short periods
- difficult to treat - recurrences are common

**Rate question:**

#### Question stats

A		12.1%
B		68.9%
C		6.4%
D		7.1%
E		5.6%

68.9% of users answered this question correctly

Session score = 55.6%

#### RCGP curriculum

15.10 - Skin Problems

[Knowledge](#)

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#### External links

[DermNet NZ](#)

Overview and pictures of seborrhoeic dermatitis

[Clinical Knowledge Summaries](#)

Seborrhoeic dermatitis guidelines







## Question 41 of 181



A 41-year-old woman shows you a rash on her legs:



Image used on license from [DermNet NZ](#)



What is the most likely cause of such a rash?



A. Domestic abuse

B. Excessive ultraviolet light

C. Drug reaction



D. Infrared radiation

E. Syphilis

This patient has erythema ab igne, a skin reaction caused by excessive infrared radiation.

### Erythema ab igne

Erythema ab igne is a skin disorder caused by over exposure to infrared radiation. Characteristic features include erythematous patches with hyperpigmentation and telangiectasia. A typical history would be an elderly women who always sits next to an open fire

If the cause is not treated then patients may go on to develop squamous cell skin cancer

Rate question:

### Question stats

A	2.7%
B	20.8%
C	14.7%
D	60.2%
E	1.6%

60.2% of users answered this question correctly

Session score = 29.3%

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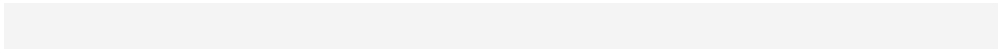
[Curriculum statement](#)

### External links

[DermNet NZ](#)

Erythema ab igne







# Question 42 of 181



A 50-year-old man who has had a cough for the past week develops a rash. It initially appeared on his arms but has now spread to the torso:



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What is the most likely underlying diagnosis?

- A. Goodpasture's syndrome
- B. Adenovirus
- ☒ C. *Mycoplasma pneumoniae*
- D. *Legionella pneumophila*
- E. Rhinovirus

This patient has developed erythema multiforme (EM), a known complication of *Mycoplasma* infection. *Mycoplasma pneumoniae* is the second most common trigger of EM after the herpes simplex virus.

## Erythema multiforme

### Features

- target lesions
- initially seen on the back of the hands / feet before spreading to the torso
- upper limbs are more commonly affected than the lower limbs
- pruritus is occasionally seen and is usually mild

If symptoms are severe and involve blistering and mucosal involvement the term

### Question stats

A	14.2%
B	6%
C	70.1%
D	7.6%
E	2%

70.1% of users answered this question correctly

Session score = 31%

### RCGP curriculum

15.10 - Skin Problems

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### External links

[DermNet NZ](#)

Erythema multiforme



Stevens-Johnson syndrome is used.

#### Causes

- viruses: herpes simplex virus (the most common cause), Orf\*
- idiopathic
- bacteria: *Mycoplasma*, *Streptococcus*
- drugs: penicillin, sulphonamides, carbamazepine, allopurinol, NSAIDs, oral contraceptive pill, nevirapine
- connective tissue disease e.g. Systemic lupus erythematosus
- sarcoidosis
- malignancy

\*Orf is a skin disease of sheep and goats caused by a parapox virus

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## Questions 43 to 45 of 181



**Theme:** Skin disorders affecting the soles of the feet

- A Pitted keratolysis
- B Mosaic wart
- C Acquired keratoderma
- D Juvenile plantar dermatosis
- E Palmoplantar pustulosis
- F Tinea pedis
- G Callus
- H Idiopathic plantar hidradenitis
- I Exfoliative keratolysis
- J Contact dermatitis

## Question stats

Average score for registered users:

43	<div></div>	44.8%
44	<div></div>	42.8%
45	<div></div>	39.7%

Session score = 31.1%

For each one of the following scenarios please select the most likely diagnosis:

43. A 23-year-old female presents with red, thickened skin on the soles. On closer inspection a crop of raised lesions are seen.



Juvenile plantar dermatosis

The correct answer is Palmoplantar pustulosis

44. A 22-year-old man presents with a 3 cm area of hyperkeratotic skin on the heel of his right foot. A number of pinpoint petechiae are seen in the lesion.



Pitted keratolysis

The correct answer is Mosaic wart

45. A 15-year-old complains of excessively smelly feet. On examination he has white skin over the sole of the forefoot bilaterally. Small holes can be seen on the surface of the affected skin.



Pitted keratolysis

## RCGP curriculum

15.10 - Skin Problems

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The table below gives characteristic exam question features for conditions affecting the soles of the feet

<b>Verrucas</b>	Secondary to the human papilloma virus Firm, hyperkeratotic lesions Pinpoint petechiae centrally within the lesions May coalesce with surrounding warts to form mosaic warts
<b>Tinea pedis</b>	More commonly called Athlete's foot Affected skin is moist, flaky and itchy
<b>Corn and calluses</b>	A corn is small areas of very thick skin secondary to a reactive hyperkeratosis A callus is larger, broader and has a less well defined edge than a corn
<b>Keratoderma</b>	May be acquired or congenital Describes a thickening of the skin of the palms and soles Acquired causes include reactive arthritis (keratoderma blennorrhagica)
<b>Pitted keratolysis</b>	Affects people who sweat excessively Patients may complain of damp and excessively smelly feet Usually caused by Corynebacterium Heel and forefoot may become white with clusters of punched-out pits
<b>Palmoplantar pustulosis</b>	Crops of sterile pustules affecting the palms and soles The skin is thickened, red. Scaly and may crack More common in smokers
<b>Juvenile plantar dermatosis</b>	Affects children. More common in atopic patients with a history of eczema Soles become shiny and hard. Cracks may develop causing pain Worse during the summer

Rate question:



## Question 46 of 181




A 62-year-old man asks you to look at a lesion on his face:



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What is the most likely diagnosis?



- A. **Keratoacanthoma**
- B. Seborrhoeic keratoses
- C. Actinic keratosis
-  D. Basal cell carcinoma
- E. Pyoderma gangrenosum

This patient should be fast-tracked to exclude a squamous cell carcinoma.

### Keratoacanthoma

Keratoacanthoma is a benign epithelial tumour. They are more frequent in middle age and do not become more common in old age (unlike basal cell and squamous cell carcinoma)

Features - said to look like a volcano or crater

- initially a smooth dome-shaped papule
- rapidly grows to become a crater centrally-filled with keratin

Spontaneous regression of keratoacanthoma within 3 months is common, often

### Question stats

A	<div style="width: 66.5%;"></div>	66.5%
B	<div style="width: 3.4%;"></div>	3.4%
C	<div style="width: 5.6%;"></div>	5.6%
D	<div style="width: 22.8%;"></div>	22.8%
E	<div style="width: 1.7%;"></div>	1.7%

66.5% of users answered this question correctly

Session score = 30.4%

### RCGP curriculum

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### External links

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Keratoacanthoma pictures



resulting in a scar. Such lesions should however be urgently excised as it is difficult clinically to exclude squamous cell carcinoma. Removal also may prevent scarring

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# Question 47 of 181



A 50-year-old man with a history of ulcerative colitis comes for review. Six years ago he had an ileostomy formed which has been functioning well until now. Unfortunately he is currently suffering significant pain around the stoma site. On examination a deep erythematous ulcer is noted with a ragged edge. The surrounding skin is erythematous and swollen. What is the most likely diagnosis?

- A. Munchausen's syndrome
- B. Irritant contact dermatitis
-  C. **Pyoderma gangrenosum**
- D. Dermatitis artefacta
- E. Stomal granuloma

## Question stats

A	0.8%
B	19.4%
C	48.9%
D	2.3%
E	28.6%

48.9% of users answered this question correctly

Session score = 31.9%

Pyoderma gangrenosum is associated with inflammatory bowel disease and may be seen around the stoma site. Treatment is usually with immunosuppressants as surgery may worsen the problem

A differential diagnosis would be malignancy and hence lesions should be referred for specialist opinion to evaluate the need for a biopsy. Irritant contact dermatitis is common but would not be expected to cause such a deep ulcer.

## Pyoderma gangrenosum

### Features

- typically on the lower limbs
- initially small red papule
- later deep, red, necrotic ulcers with a violaceous border
- may be accompanied systemic symptoms e.g. Fever, myalgia

### Causes\*

- idiopathic in 50%
- inflammatory bowel disease: ulcerative colitis, Crohn's
- rheumatoid arthritis, SLE
- myeloproliferative disorders
- lymphoma, myeloid leukaemias
- monoclonal gammopathy (IgA)
- primary biliary cirrhosis

### Management

- the potential for rapid progression is high in most patients and most doctors advocate oral steroids as first-line treatment
- other immunosuppressive therapy, for example ciclosporin and infliximab, have a role in difficult cases

## RCGP curriculum

15.10 - Skin Problems

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## External links

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Picture of pyoderma gangrenosum

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Stoma skin problems



\*note whilst pyoderma gangrenosum can occur in diabetes mellitus it is rare and is generally not included in a differential of potential causes

**Rate question:**



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### Question 48 of 181



A 50-year-old man presents with shiny, flat-topped papules on the palmar aspect of the wrists. He is mainly bothered by the troublesome and persistent itching. A diagnosis of lichen planus is suspected. What is the most appropriate treatment?

- A. Refer for punch biopsy
-  B. Emollients + oral antihistamine
- C. Topical dapsone
- D. Topical clotrimazole
-  E. Topical clobetasone butyrate

#### Question stats

A		15.1%
B		13.3%
C		14%
D		5.3%
E		52.3%

52.3% of users answered this question correctly

Session score = 31.3%

### Lichen planus

Lichen planus is a skin disorder of unknown aetiology, most probably being immune mediated

#### Features

- itchy, papular rash most common on the palms, soles, genitalia and flexor surfaces of arms
- rash often polygonal in shape, 'white-lace' pattern on the surface (Wickham's striae)
- Koebner phenomenon may be seen (new skin lesions appearing at the site of trauma)
- oral involvement in around 50% of patients
- nails: thinning of nail plate, longitudinal ridging

Lichenoid drug eruptions - causes:

- gold
- quinine
- thiazides

#### Management

- topical steroids are the mainstay of treatment
- extensive lichen planus may require oral steroids or immunosuppression

Rate question:

#### RCGP curriculum

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[Curriculum statement](#)

#### External links

[DermNet NZ](#)

Picture of lichen planus

[DermNet NZ](#)

Picture of Wickham's striae



**Question 49 of 181**


A 24-year-old woman presents due to a rash on her neck and forehead. She returned from a holiday in Cyprus 1 week ago and had her hair dyed 2 days ago. On examination there is a weepy, vesicular rash around her hairline although the scalp itself is not badly affected. What is the most likely diagnosis?

- A. Cutaneous leishmaniasis
- B. Irritant contact dermatitis
- ✓ C. Allergic contact dermatitis
- D. Syphilis
- E. Photocontact dermatitis

**Question stats**

<b>A</b>		2.3%
<b>B</b>		41.4%
<b>C</b>		44.2%
<b>D</b>		0.2%
<b>E</b>		12%

44.2% of users answered this question correctly

Session score = 32.7%

**Contact dermatitis**

There are two main types of contact dermatitis

- irritant contact dermatitis: common - non-allergic reaction due to weak acids or alkalis (e.g. detergents). Often seen on the hands. Erythema is typical, crusting and vesicles are rare
- allergic contact dermatitis: type IV hypersensitivity reaction. Uncommon - often seen on the head following hair dyes. Presents as an acute weeping eczema which predominately affects the margins of the hairline rather than the hairy scalp itself. Topical treatment with a potent steroid is indicated

Cement is a frequent cause of contact dermatitis. The alkaline nature of cement may cause an irritant contact dermatitis whilst the dichromates in cement also can cause an allergic contact dermatitis

**Rate question:**

**RCGP curriculum**

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### Question 50 of 181



A 72-year-old man complains of a skin lesion on his trunk. On examination it has the typical appearance of a seborrhoeic keratosis. Which one of the following management options is least suitable?

- A. Cryosurgery
-  B. Reassurance about benign nature
- C. Shave biopsy
- D. Curettage
-  E. Excision

Scalpel excision is not usually performed on seborrhoeic keratoses due to the success of other simpler methods.

### Seborrhoeic keratoses

Seborrhoeic keratoses are benign epidermal skin lesions seen in older people.

#### Features






- large variation in colour from flesh to light-brown to black
- have a 'stuck-on' appearance
- keratotic plugs may be seen on the surface

#### Management

- reassurance about the benign nature of the lesion is an option
- options for removal include curettage, cryosurgery and shave biopsy

**Rate question:**

### Question stats

A		12.5%
B		15.7%
C		18.3%
D		6.4%
E		47.1%

47.1% of users answered this question correctly

Session score = 32%

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### External links

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Seborrhoeic keratoses








# Question 1 of 131



You review a 24-year-old woman. Six days ago she developed a pink, itchy rash over her torso and arms. The following day she started to take loratidine 10mg od but this has only led to a slight improvement in her symptoms. On review today she has a widespread urticarial rash which is extremely itchy. There is no lip or tongue swelling, her chest is clear and vital signs are unremarkable. What is the most appropriate next step in management?

- A. Refer for allergy testing
- B. Prescribe topical hydrocortisone to relieve the itch
- C. Switch to cetirizine 10mg od
-  D. **Start a five day course of oral prednisolone**
- E. Increase loratidine to 10mg bd

## Question stats

A		5.9%
B		11.1%
C		14.2%
D		61.9%
E		6.9%

61.9% of users answered this question correctly

Session score = 100%

## Urticaria

Urticaria describes a local or generalised superficial swelling of the skin. The most common cause of urticaria is allergy although non-allergic causes are seen.

### Features

- pale, pink raised skin. Variously described as 'hives', 'wheals', 'nettle rash'
- pruritic

### Management

- non-sedating antihistamines are first-line
- prednisolone is used for severe or resistant episodes

### Rate question:

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# Question 2 of 131



A 27-year-old woman who is 34 weeks pregnant presents with an itchy, blistering rash over her abdomen. Initially she had a red rash around her umbilicus but it later spread.



Image used on license from [DermNet NZ](#)

What is the most likely diagnosis?

- ☒ A. Pemphigoid gestationis
- ☐ B. Seborrhoeic dermatitis
- ☒ C. Polymorphic eruption of pregnancy
- ☐ D. HELLP syndrome
- ☐ E. Pompholyx

## Question stats

A	<div style="width: 64.3%;"></div>	64.3%
B	<div style="width: 0.3%;"></div>	0.3%
C	<div style="width: 34.1%;"></div>	34.1%
D	<div style="width: 0.3%;"></div>	0.3%
E	<div style="width: 1%;"></div>	1%

64.3% of users answered this question correctly

Session score = 50%

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[DermNet NZ](#)

Polymorphic eruption of pregnancy

[DermNet NZ](#)

Pemphigoid gestationis

## Skin disorders associated with pregnancy

### Polymorphic eruption of pregnancy

- pruritic condition associated with last trimester
- lesions often first appear in abdominal striae
- management depends on severity: emollients, mild potency topical steroids and oral steroids may be used

### Pemphigoid gestationis



- pruritic blistering lesions
- often develop in peri-umbilical region, later spreading to the trunk, back, buttocks and arms
- usually presents 2nd or 3rd trimester and is rarely seen in the first pregnancy
- oral corticosteroids are usually required

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# Acanthosis nigricans

## What is acanthosis nigricans?

Acanthosis nigricans (AN) is a skin disorder characterised by darkening ([hyperpigmentation](#)) and thickening (hyperkeratosis) of the skin, occurring mainly in the folds of the skin in the armpit (axilla), groin and back of the neck.

Acanthosis nigricans is not a skin disease per se but a cutaneous sign of an underlying condition or disease.

There are two important types of acanthosis: benign and malignant. Although classically described as a sign of internal malignancy, this is very rare. Benign types, sometimes described as ‘pseudoacanthosis nigricans’ are much more common.

## What causes acanthosis nigricans?

The cause for acanthosis nigricans is still not clearly defined but it appears to be related to insulin resistance. It has been associated with various benign and malignant conditions. Based on the pre-disposing conditions, acanthosis nigricans has been divided into 7 types.

Types of acanthosis nigricans (AN)	
Type	Characteristics
Obesity-associated acanthosis nigricans	<ul style="list-style-type: none"><li>• Most common type of AN</li><li>• May occur at any age but more common in adulthood</li><li>• Obesity often caused by insulin resistance</li></ul>
Syndromic	<ul style="list-style-type: none"><li>• Defined as AN that is associated with a syndrome, e.g. hyperinsulinaemia, <a href="#">Cushing's</a></li></ul>



acanthosis nigricans

[syndrome](#), [polycystic ovary syndrome](#), [total lipodystrophy](#)

Benign acanthosis nigricans

- Also referred to as acral acanthotic anomaly
- Thick velvety lesion most prominent over the upper surface of hands and feet in patients who are in otherwise good health
- Most common in dark-skinned people, especially those of African American descent

Drug-induced acanthosis nigricans

- Uncommon, but AN may be induced by several medications, including nicotinic acid, insulin, systemic corticosteroids and hormone treatments

Hereditary benign acanthosis nigricans

- AN inherited as an autosomal dominant trait
- Lesions may manifest at any age, infancy, childhood or adulthood

Malignant acanthosis nigricans

- AN associated with internal malignancy
- Most common underlying cancer is tumour of the gut (90%) especially stomach cancer
- In 25-50% of cases, lesions are present in the mouth on the tongue and lips

Mixed-type acanthosis nigricans

- Patients with one type of AN whom also develop new lesions of a different cause, e.g. overweight patient with obesity-associated AN who then develops malignant AN

## What are the features of acanthosis nigricans?

- Thickened brown velvety textured patches of skin that may occur in any location but most commonly appear in the folds of the skin in the armpit, groin and back of the neck.
- Papillomatosis (multiple finger-like growths) is common on cutaneous and mucosal surfaces.
- Skin tags often found in and around affected areas.
- Pruritus (itching) may be present.
- AN lesions may also appear on the mucous membranes of the oral cavity, nasal and laryngeal mucosa and oesophagus.
- Lesions involving the mucosa, palms and soles tends to be more extensive and more severe in malignant AN.
- Patients with malignant AN tend to be middle-aged, not obese and lesions develop abruptly.

Acanthosis nigricans







## What is the workup for acanthosis nigricans?

It is very important to differentiate acanthosis nigricans related to malignancy from that related to benign conditions. Tumours in malignant AN are usually very aggressive and spread quickly. Death often occurs soon after. If malignant AN is suspected in a patient without known cancer, it is extremely important to perform a thorough workup for underlying malignancy and identify a hidden tumour. If the tumour can be successfully treated, the condition may resolve.

Other causes of AN may be identified by screening for insulin resistance and diabetes mellitus.

## What is the treatment for acanthosis nigricans?

The primary aim of treatment is to correct the underlying disease process. Often correcting the underlying cause results in resolution of the lesions.

- Correct hyperinsulinaemia through diet and medication
- Lose weight with obesity-associated AN
- Excise or treat underlying tumour
- Stop offending medicines in drug-induced AN

In hereditary AN, lesions tend to enlarge gradually before stabilising and/or regressing on their own.

There is no specific treatment for AN. Treatments considered are used primarily to improve cosmetic appearance and include topical retinoids, dermabrasion and laser therapy.

Final outcome of AN varies depending on the cause of AN. Benign conditions either on their own or through lifestyle changes and/or treatment have good outcomes. However, the prognosis for patients with malignant AN is often poor. The associated cancer is often advanced and the average survival of these patients is approximately 2 years.

## Related information

### On DermNet NZ:

- [Cutaneous markers of internal malignancy](#)
- [Sign of Leser-Trelat](#)
- [Florid cutaneous papillomatosis](#)
- [Skin pigmentation](#)
- [Dowling-Degos disease \(reticulate pigmented anomaly\)](#)

### Other websites:

- emedicine dermatology, the online textbook



- [Acanthosis nigricans](#)
- [Paraneoplastic Diseases](#)

## **Books about skin diseases:**

See the [DermNet NZ bookstore](#)

Author: Vanessa Ngan, Staff writer

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If you have any concerns with your skin or its treatment, see a dermatologist for advice.

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## Basal cell carcinoma

Basal cell carcinoma is also known as *BCC* or *rodent ulcer*. Basal cell carcinoma is the most common type of cancer in humans and is particularly prevalent in the Australia and New Zealand. Luckily, this form of [skin cancer](#) is very rarely a threat to life.

### Who is prone to basal cell carcinoma?

BCC typically affects adults of fair complexion who have had a lot of sun exposure, or repeated episodes of [sunburn](#). Although more common in the elderly, sun-loving New Zealanders frequently develop them in their early 40s and sometimes younger.

The tendency to develop BCC may be inherited, and is a particular problem for families with basal cell naevus syndrome ([Gorlin syndrome](#)) or [Bazex syndrome](#).

### Types of basal cell carcinoma

BCCs arise in otherwise normal appearing skin, unlike [squamous cell carcinomas](#) (SCCs), which often arise within pre-existing [solar keratoses](#). They usually grow slowly over months or years so they can vary in size from a few millimetres to several centimetres in diameter. There are several different clinical types.

- Most common type on the face
- Small, shiny, skin coloured or pinkish lump
- Blood vessels cross its surface
- May have a central ulcer so its edges appear rolled
- Often bleeds spontaneously then seem to heal over
- Cystic BCC is soft, with jelly-like contents

Nodular BCC



- Rodent ulcer is an open sore
- Micronodular and microcystic types may infiltrate deeply



#### Superficial BCC

- Often multiple
- Upper trunk and shoulders, or anywhere
- Pink or red scaly irregular plaques
- Slowly grow over months or years
- Bleed or ulcerate easily



#### Morphoeic BCC

- Also known as sclerosing BCC
- Usually found in mid-facial sites
- Skin-coloured, waxy, scar-like
- Prone to recur after treatment
- May infiltrate cutaneous nerves (perineural spread)



#### Pigmented BCC

- Brown, blue or greyish lesion
- Nodular or superficial histology
- May resemble [melanoma](#)



#### Basisquamous BCC

- Mixed basal cell carcinoma (BCC) and squamous cell carcinoma (SCC)
- Potentially more aggressive than other forms of BCC



More images of basal cell carcinoma ...

- [BCC on the face](#)
- [BCC on the nose](#)
- [BCC on the eyelid](#)
- [BCC on the ear](#)
- [BCC on the limbs](#)
- [BCC on the trunk](#)



# Treatment of BCC

The treatment for a BCC depends on its type, size and location, the number to be treated, and the preference or expertise of the doctor. Possibilities include:

## Superficial skin surgery

Shave, [curettage, & cautery](#) (and other types of minor surgery). Many small, well-defined nodular or superficial BCCs can be successfully removed by removing just the top layers of the skin. The wound usually heals within a few weeks without needing stitches.

## Excision biopsy

[Excision](#) means the lesion is cut out and the skin stitched up. This is the most appropriate treatment for nodular, infiltrative and morphoeic BCCs. Very large lesions may require a [flap](#) or [skin graft](#) to repair the defect after excision.

## Mohs micrographically controlled excision

[Mohs micrographically controlled excision](#) is a technique used for BCCs growing in high risk areas of the face around the eyes and nose. Ill-defined, morphoeic and recurrent BCCs are also best removed by a dermatologic surgeon by the Mohs technique. This involves examining the carefully marked excised tissue under the microscope while the patient is still in the operating suite, layer by layer. It may take several slices until the tumour has been completely removed. The defect is often much bigger than the BCC appeared to be before surgery because of hidden extensions of tumour cells under the skin.

## Photodynamic therapy

[Photodynamic therapy](#) (PDT) refers to a technique in which the tumour is treated with a photosensitising chemical in a cream (e.g. [Metvix](#)) or lotion, and exposed to light several hours later. Up to 85% superficial BCCs are cured by PDT, with excellent cosmetic results. It is less successful for other types of BCC and is best avoided if the tumour is in a high risk site.

## Imiquimod cream

[Imiquimod](#) is an immune response modifier. The cream is applied to superficial BCCs three to five times each week, for six to sixteen weeks. The imiquimod results in an inflammatory reaction, maximal at three weeks. Up to 85% of suitable BCCs disappear, with minimal scarring.

## Cryotherapy

[Cryotherapy](#) is the treatment of a superficial skin lesion by freezing it. Dermatologists sometimes treat small superficial BCCs with liquid nitrogen, using a special double freeze-thaw technique. A blister forms, crusts over and heals within several weeks. A permanent white mark usually results from this treatment, but it is inexpensive and may be very suitable for lesions in covered sites.

## Radiotherapy

[Radiotherapy](#) refers to X-ray treatment, and is less commonly used to treat BCCs than in the past. It may be suitable for skin cancers on the face in the elderly. The best cosmetic results are achieved using multiple fractions, e.g. once-weekly treatments for several weeks.



# What happens after treatment?

Whatever the chosen treatment, BCC can nearly always be cured.


- BCCs occasionally recur at the same site, but they can be treated again by the same or a different method. The highest cure rates are obtained by Mohs surgery.
- Metastatic BCC refers to BCC that has spread to the lymph glands and other organs. It is extremely rare but may be ultimately fatal.

Patients with BCC are at increased risk of developing further BCCs. They are also at increased risk of other skin cancers, especially [melanoma](#). Arrange a complete skin examination from time to time. Ask your [dermatologist](#) or GP to check any persisting or growing lumps or sores or otherwise odd-looking skin lesions. Early detection means easier treatment, and less scarring.

[Protect your skin](#) from excessive exposure to the sun. Stay indoors or under the shade in the middle of the day. Wear covering clothing. Apply broad spectrum [sunscreens](#) to exposed skin if you are outdoors for prolonged periods, especially during the summer months.

## Related information

### References:

-  [Guidelines for the Management of Basal Cell Carcinoma \(NR Telfer, GB Colver, PW Bowers\). BJD, Vol. 159, No.1, July 2008 \(p35\)](#) – British Association of Dermatologists

### On DermNet NZ:

- [Dermatological procedures](#)
- [Mohs micrographic surgery](#)
- [Skin lesions](#)
- [Skin cancer](#)
- [Gorlin syndrome](#)
- [Bazex syndrome](#)
- [Basal cell carcinoma](#) – common skin lesions course

### Other websites:

- [American College of Mohs Micrographic Surgery and Oncology](#)
- [Mohs Micrographic Surgery](#) from Johns Hopkins Oncology Center
- [Basal cell carcinoma](#): emedicine dermatology, the on-line medical reference textbook.
- [Basal cell carcinoma](#) – British Association of Dermatologists

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## Bullous pemphigoid

Bullous pemphigoid is a blistering skin disease which usually affects middle aged or elderly persons. It is an immunobullous disease, i.e. the blisters are due an immune reaction within the skin.

### What does it look like?

Characteristically, crops of tense, fluid-filled blisters develop. They may arise from normal-looking or red patches of skin, and the blisters may be filled with clear, cloudy or blood-stained fluid. Bullous pemphigoid is usually very itchy. It may be localized to one area but is more often widespread, often favouring body folds. In severe cases, there may be blisters over the entire skin surface as well as [blisters inside the mouth](#).

Prior to blistering, the red itchy patches may be thought to be a kind of [dermatitis](#) or [urticaria](#).

When the blisters heal up, they may leave brown marks ([postinflammatory pigmentation](#)) and/or tiny [cysts](#) called [milia](#) but these usually disappear within a few months.







Bullous pemphigoid

[More images of bullous pemphigoid ...](#)

## How is the diagnosis made?

A dermatologist can often make the diagnosis by examining the skin carefully. In most cases the diagnosis will be confirmed by a [skin biopsy](#) of a typical blister. Under the microscope, the pathologist can see a split between the outside layer of the skin, the epidermis, and the inside layer, the dermis. Direct immunofluorescence staining highlights antibodies along the basement membrane that lies between the epidermis and dermis.

## What causes bullous pemphigoid?

Bullous pemphigoid is thought to occur because IgG immunoglobulins (antibodies) and activated T lymphocytes (white blood cells) attack components of the basement membrane, particularly a protein known as the BP antigen BP180, or less frequently BP230. These proteins are within the NC16A domain of collagen XVII. BP180 is also called Type XVII collagen. These are associated with the hemidesmosomes, structures that ensure the epidermal keratinocyte cells stick to the dermis to make a waterproof seal. The 'autoimmune' reaction to these proteins can be thought of as a type of allergy to one's own skin.

In many patients, skin antibodies can also be detected circulating in the blood stream (positive indirect immunofluorescence).

## What is the treatment?

If the pemphigoid is very widespread, hospital admission may be advised so the blisters and raw areas can be expertly dressed. Antibiotics may be required for secondary bacterial infection.

Most patients with bullous pemphigoid are treated with [steroid](#) tablets, usually prednisone. The dose is adjusted until the blisters have stopped appearing, which usually takes several weeks. The dose of prednisone is then slowly reduced over many months or years. As systemic steroids have many undesirable side effects, other medications are added to ensure the lowest possible dose (aiming for 5 to 10mg prednisone daily). These other medications may include:

- [Topical steroids](#) (usually clobetasol propionate)
- [Tetracycline](#) antibiotics
- Nicotinamide
- [Dapsone](#)
- [Azathioprine](#)
- [Methotrexate](#)
- [High dose intravenous immunoglobulin](#)


Treatment is usually needed for several years. In most cases the pemphigoid eventually completely clears up and the treatment can be stopped.



If you have pemphigoid, make sure you understand your treatment - do not alter it without consulting your dermatologist or general practitioner.

## Related information

### References:

-  [Guidelines for the Management of Bullous Pemphigoid \(F Wojnarowska, G Kirtschig, AS Highet, VA Vening, NP Khumalo\) BJD, Vol. 147, No. 2, August 2002 \(p214-221\)](#) – British Association of Dermatologists

### On DermNet NZ:

- [Blistering skin diseases](#)
- [Cicatricial pemphigoid](#)
- [Epidermolysis bullosa acquisita](#)
- [Oral blistering diseases](#)

### Other websites:

- [International Pemphigus & Pemphigoid Foundation](#)
- [Bullous pemphigoid](#) – emedicine dermatology, the online textbook
- [Pemphigoid](#) – British Association of Dermatologists

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## Dermatitis herpetiformis

Dermatitis herpetiformis (also known as 'DH') is a rare but persistent immunobullous skin condition related to coeliac disease. It affects young adults; two thirds of patients are male. There is a genetic predisposition.

'Immunobullous' means it is a blistering condition caused by an abnormal immunological reaction. All forms of coeliac disease involve IgA antibodies and intolerance to the gliaden fraction of gluten found in wheat; the precise reaction has not been identified.

Eighty percent of patients with dermatitis herpetiformis also have gluten enteropathy, which is the most common type of coeliac disease. There is an association with thyroid disease in one third.

### Clinical features

Dermatitis herpetiformis characteristically affects the scalp, buttocks, elbows and knees but lesions may arise on any area of skin. Extremely itchy bumps ([prurigo](#) papules) and blisters (vesicles) up to 1 cm in diameter arise on normal or reddened skin. The severity can vary from week to week but it rarely clears up without specific treatment.

Dermatitis herpetiformis







## Gluten enteropathy

Gluten enteropathy may affect children and adults. It is characterised by villous atrophy. This means that instead of being highly convoluted, the lining of the intestines is smooth and flattened. The result is poor or very poor absorption of nutrients. The patient may feel well or develop the following symptoms:

- Tiredness (80%)
- Abdominal discomfort and bloating (75%)
- Weight loss (30%)
- Constipation (30%) or diarrhoea (50%)
- Pale stools that float on the surface of the toilet pan
- Bone fractures due to osteoporosis

## Other associated conditions

The range of conditions less commonly induced by gluten also includes:

- Neurological problems including ataxia (loss of balance), polyneuropathy, epilepsy
- Heart problems including pericarditis and cardiomyopathy
- Thin dental enamel
- Recurrent abortions (miscarriage)
- Fatty liver resulting in abnormal liver function
- Aphthous ulcers

Patients with coeliac disease sometimes suffer from other autoimmune conditions possibly associated with gluten intolerance. These include insulin-dependent diabetes mellitus, thyroiditis, autoimmune hepatitis, Sjögren's syndrome, [Addison's disease](#), atrophic gastritis and [alopecia areata](#).

They may also be affected by conditions that are not related to gluten intolerance. These include IgA deficiency, [psoriasis](#), [Down syndrome](#) and primary biliary cirrhosis.

Non-Hodgkin's lymphoma, affecting the intestines or any part of the body, is a serious complication of gluten enteropathy but is fortunately rare, affecting less than 1% of patients.

## Laboratory findings

Although dermatologists may suspect the diagnosis from the clinical appearance, a [skin biopsy](#) is usually necessary to confirm it. The microscopic appearance of dermatitis herpetiformis is characteristic.

- The blister is subepidermal (it forms underneath the epidermis)
- The inflammatory cells (neutrophils and eosinophils) group in the dermal papillae
- Direct immunofluorescence reveals IgA immunoglobulin in dermal papillae



The results of blood tests are usually normal but some patients have the following abnormalities, due to gluten enteropathy:

- Mild anaemia
- Folic acid deficiency
- Iron deficiency

Specific autoantibody tests are available to confirm the diagnosis.

- Antiendomysial antibodies (IgA)
- Tissue transglutaminase antibody (IgA)
- Deamidated gliadin peptide antibody (dGP, IgA and IgG)
- Gliadin assay (IgA and IgG)

Borderline results may be difficult to interpret.

Other tests may include:

- Total IgA
- Histocompatibility antigen typing: HLA-DR3 and DQw2 are present in most patients with coeliac disease. About 5% of those with HLA-DQ are affected by one form or other of coeliac disease
- Small bowel biopsy

The bowel may appear normal because of treatment (medicine or restricted intake of gluten), because there are skip lesions (the sample was taken from an unaffected site) or the intestine may be unaffected by the disease.

## Treatment

The medication of choice is [dapsone](#), which considerably reduces the itch within a day or two. The dose required varies from 50 mg to 300 mg daily; refer to DermNet's page about dapsone for potential side effects and monitoring requirements.

For those intolerant or allergic to dapsone, the following may be useful:

- Ultrapotent [topical steroids](#)
- [Systemic steroids](#)
- Sulfapyridine (not available in New Zealand).

A strict gluten-free diet is strongly recommended.

- It reduces the requirement for dapsone
- It improves associated gluten enteropathy
- It enhances nutrition and bone density
- It may reduce the risk of developing other autoimmune conditions
- It probably reduces the risk of intestinal lymphoma.

## Related information

### Other websites:

- [Manufactured Food Database](#) (NZ) for gluten free diet
- [NZ Coeliac Society](#)
- [Gluten Intolerance Group of North America](#)



- [Dermatitis herpetiformis](#) – emedicine dermatology, the online textbook
- [Dermatitis Herpetiformis](#) – British Association of Dermatologists

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by localization

AIDS-Related Complex, Kaposi's Sarcoma



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image description

diagnosis	localization	lesions	additional descriptions
AIDS-Related Complex		node	
Kaposi's Sarcoma		node	

patient information

patient sex: ♂ male

related



Previous Image Next Image  
more information about this  
diagnose

AIDS-Related Complex (9)

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differential diagnoses

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by localization

Livedo Reticularis



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image description

diagnosis	localization	lesions	additional descriptions
Livedo Reticularis			vessel changes*

patient information

patient sex: ♂ male  
patient age: 55  
patient race: caucasian

related



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Buschke's Heat Melanosis (6)



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by localization

Myxoedema, Pretibial



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image description

diagnosis	localization	lesions	additional descriptions
Myxoedema, Pretibial			

patient information

patient sex: ♀ female

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diagnose

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- Eosinophilic Fasciitis (0)
- Lymphoedema (12)
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## Erythema ab igne

### What is erythema ab igne?

Erythema ab igne (EAI) is a skin reaction caused by chronic exposure to infrared radiation in the form of heat. It was once a common condition seen in the elderly who stood or sat closely to open fires or electric space heaters. Although the introduction of central heating has reduced EAI of this type, it is still found in individuals exposed to heat from other sources.

### What are the signs and symptoms and who is at risk?

Limited exposure to heat, insufficient to cause a direct burn, causes a mild and transient red rash resembling lacework or a fishing net. Prolonged and repeated exposure causes a marked redness and colouring of the skin (hyper- or hypopigmentation). The skin and underlying tissue may start to thin (atrophy) and rarely sores may develop. Some patients may complain of mild itchiness and a burning sensation.

Erythema ab igne







Localised lesions seen today reflect the different sources of heat that people may be exposed to. Examples include:

- Repeated application of hot water bottles or heat pads to treat chronic pain, e.g. chronic backache
- Repeated exposure to car heaters or furniture with built-in heaters
- Occupational hazard for silversmiths and jewellers (face exposed to heat), bakers and chefs (arms)

## What treatments are available?

The source of chronic heat exposure must be avoided. If the area is only mildly affected with slight redness, the condition will resolve by itself over several months. If the condition is severe and the skin pigmented and atrophic, resolution is unlikely. In this case, there is a possibility that squamous cell carcinomas may form. If there is a persistent sore that doesn't heal or a growing lump within the rash, a skin biopsy should be performed to rule out the possibility of skin cancer. Abnormally pigmented skin may persist for years. Treatment with topical tretinoin or laser may improve the appearance.

## Related information

### References:

- Book: Textbook of Dermatology. Ed Rook A, Wilkinson DS, Ebling FJB, Champion RH, Burton JL. Fourth edition. Blackwell Scientific Publications.

### On DermNet NZ:

### Other websites:

- [Erythema ab igne](#) – emedicine dermatology, the online textbook

### Books about skin diseases:

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**Author:** Vanessa Ngan, staff writer

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## Erythema multiforme

### What is erythema multiforme?

Erythema Multiforme (EM) is a hypersensitivity reaction usually triggered by infections, most commonly [herpes simplex virus](#) (HSV). It presents with a skin eruption characterised by a typical target (iris) lesion. There may be mucous membrane involvement. It is acute and self-limiting, usually resolving without complications.

Erythema multiforme is divided into major and minor forms and is now regarded as probably distinct from [Stevens Johnson Syndrome \(SJS\)](#) and [Toxic Epidermal Necrolysis \(TEN\)](#).

### Who gets erythema multiforme?

Erythema multiforme most commonly affects young adults (20-40 years of age), however all age groups can be affected. There is a male predominance but no racial bias.

There is a genetic tendency to EM. Certain tissue types are more often found in people with herpes-associated EM (HLA-DQw3) and recurrent EM (HLA-B15, -B35, -A33, -DR53, -DQB1\*0301).

### What triggers it?

#### Infections

Infections are probably associated with at least 90% of cases of EM.

The single most common trigger for developing EM is [herpes simplex](#) virus (HSV) infection, usually herpes labialis (cold sore on the lip) and less often [genital herpes](#). HSV type 1 is more commonly associated than type 2. The herpes



infection usually precedes the skin eruption by 3-14 days.

*Mycoplasma pneumonia* (a lung infection caused by *Mycoplasma pneumoniae*) is the next most common trigger.

Many different virus infections have been reported to trigger EM including:

- Parapoxvirus ([orf](#) and [milkers' nodules](#) )
- Herpes varicella zoster ([chickenpox](#), [shingles](#))
- Adenovirus
- [Hepatitis viruses](#)
- [Human immunodeficiency virus](#) (HIV)
- Cytomegalovirus
- Viral [vaccines](#)

Dermatophyte fungal infections ([tinea](#)) have also been reported in association with EM.

## Drugs

Medications are probably an uncommon cause (<10%) of EM. If this diagnosis is being seriously considered then alternative drug eruptions should be excluded such as [SJS/TEN](#), generalised [fixed drug eruption](#), polymorphic exanthematous drug eruption and [urticaria](#).

Many drugs have been reported to trigger EM including barbiturates, non-steroidal anti-inflammatory drugs, penicillins, sulphonamides, phenothiazines and [anticonvulsants](#).

## Clinical features

### General symptoms

There are usually no prodromal symptoms (EM minor). However, sometimes with EM major there may be mild symptoms such as fever or chills, weakness or painful joints.

### Skin lesions

Few to hundreds of skin lesions erupt within a 24-hour period. The lesions are first seen on the backs of hands and/or tops of feet, then spread along the limbs towards the trunk. The upper limbs are more commonly affected than the lower. Palms and soles may be involved. The face, neck and trunk are common sites. Skin lesions are often grouped on elbows and knees. There may be an associated mild itch or burning sensation.

The initial lesions are sharply demarcated, round, red/pink and flat (macules) which become raised (papules/palpable) and gradually enlarge to form plaques (flat raised patches) up to several centimetres in diameter. The centre of the papule/plaque darkens in colour and develops surface (epidermal) changes such as blistering or crusting. Lesions usually evolve over 72 hours.

The typical target (iris) lesion of EM has a sharp margin, regular round shape and three concentric colour zones:

- Centre is dusky or dark red with a blister or crust
- Next ring is a paler pink and is raised due to oedema (fluid swelling)
- Outermost ring is bright red.

Atypical targets show just 2 zones and/or an indistinct border.

The eruption is polymorphous (many forms), hence the 'multiforme' in the name. Lesions may be at various stages of



development with both typical and atypical targets present at the same time. A full skin examination may be required to find typical targets as these may be few in number.

Lesions show the Köbner (isomorphic) phenomenon, meaning they can develop at sites of preceding (but not concurrent or subsequent) skin trauma.

There is no associated swelling of face, hands or feet, despite these being common sites of rash distribution. However the lips are often swollen, especially in EM major.

Erythema multiforme



[\*More pictures of EM...\*](#)

## Mucous membrane involvement

Mucosal lesions, if present, typically develop a few days after the skin rash begins.

In EM minor, mucous membrane involvement is absent or mild. Mucosal changes, if present, consist initially of redness of the lips and inside cheek. Sometimes blisters develop and quickly break to form erosions and ulcers.

In EM major, one or more mucous membranes are typically affected, most often the oral mucosa:

- most commonly lips, inside the cheeks, tongue
- less commonly floor of the mouth, palate, gums.

Other mucosal sites affected may include:

- eye
- anus and genitals
- trachea/bronchi
- gastrointestinal tract.

Mucosal lesions consist of swelling and redness with blister formation. The blisters break quickly to leave large, shallow, irregular shaped, painful ulcers that are covered by a whitish pseudomembrane. Typically the lips are swollen with haemorrhagic crusts. The patient may have difficulty speaking or swallowing due to pain.

With mycoplasma pneumonia, the mucous membranes may be the only affected sites (mucositis). This can be severe and require hospitalization due to difficulty eating and drinking. Whether this is a limited form of EM has not been determined.

Erythema multiforme: mucosal involvement





## Recurrent EM

Erythema Multiforme can be recurrent with multiple episodes per year for many years. This is believed to be nearly always due to HSV-1 infection.

## How is the diagnosis made?

Erythema multiforme is a clinical diagnosis although [skin biopsy](#) may be required to exclude other conditions. The histology of EM is characteristic but not diagnostic. It varies with the age of the lesion, its appearance, and which part is biopsied.

Other tests may be done looking for infections commonly seen in association with EM such as for *Mycoplasma pneumoniae*.

For more detail, see: [Erythema multiforme: histology & mechanisms](#).

## Treatment of erythema multiforme

For the majority of cases, no treatment is required as the rash settles by itself over several weeks without complications.

Treatment directed to any possible cause may be required such as oral [aciclovir](#) (not topical) for HSV or [antibiotics](#) (e.g. [erythromycin](#)) for *Mycoplasma pneumoniae*. If a drug cause is suspected then the possible offending drug should be ceased.

Supportive/symptomatic treatment may be necessary.

- Itch – oral [antihistamines](#) and/or [topical corticosteroids](#) may help.
- Oral pain – mouthwashes containing [local anaesthetic](#) and [antiseptic](#) reduce pain and secondary infection.
- Eye involvement should be assessed and treated by an ophthalmologist.
- EM major may require hospital admission for supportive care, particularly if severe oral involvement restricts drinking.

The role of [oral corticosteroids](#) remains controversial as no controlled studies have shown any benefit. However for severe disease 0.5-1mg/kg/d prednis(ol)one is often used early in the disease process.

Recurrent EM is usually treated initially with continuous oral [aciclovir](#) for 6 months at a dose of 10mg/kg/d in divided doses (e.g., 400mg twice daily), even if HSV has not been an obvious trigger for the patient's EM. This has been shown to be effective in placebo-controlled double blind studies. However EM may recur when the aciclovir is ceased. Other antiviral drugs such as valciclovir (500-1000mg/d) and famciclovir (250mg twice daily) should be tried if aciclovir has not helped; these drugs are not readily available in New Zealand.

Other treatments (used continuously) that have been reported to help suppress recurrent EM include:



- [Dapsone](#) 100-150mg/d
- Antimalarial drugs eg [hydroxychloroquine](#)
- [Azathioprine](#) 100-150 mg/d
- Others - [thalidomide](#), [ciclosporin](#), [mycophenolate mofetil](#), photochemotherapy ([PUVA](#)).

## What is the outlook?

Erythema multiforme usually resolves spontaneously without scarring over 2-3 weeks for the EM minor form, and up to 6 weeks for EM major. EM does not progress to SJS/TEN.

There may be residual mottled skin discolouration. Significant eye involvement in EM major may result in [serious eye problems](#) including blindness, as seen with SJS/TEN.

## Related information

### References:

- Al-Johani KA, Fedele S, Porter SR. Erythema multiforme and related disorders. Oral Surg. Oral Med. Oral Pathol. Oral Radiol. Endod. 2007; 103: 642-54.
- Auquier-Dunant A, Mockenhaupt M, Naldi L, Correia O, Schröder W, Roujeau J-C, for the SCAR Study Group. Correlations between clinical patterns and causes of erythema multiforme majus, Stevens-Johnson syndrome, and toxic epidermal necrolysis. Results of an international prospective study. Arch. Dermatol. 2002; 138: 1019-24.
- French LE, Prins C. Erythema multiforme, Stevens-Johnson syndrome and toxic epidermal necrolysis. In Bologna second edition
- Lamoreux MR, Sternbach MR, Hsu WT. Erythema multiforme. Am. Fam. Physician 2006; 74: 1883-8.
- Schalock PC, Dinulos JGH, Pace N, Schwarzenberger K, Wenger JK. Erythema multiforme due to Mycoplasma pneumoniae infection in two children. Pediatr. Dermatol. 2006; 23: 546-55.

### On DermNet NZ:

- [Erythema multiforme: histology and mechanisms](#)
- [Dermatological emergencies online course](#)
- [Bullous drug eruptions](#)
- [Drug eruptions](#)

### Other websites:

- [Erythema multiforme and toxic epidermal necrolysis](#) – Grand Round from Baylor College of Medicine
- [Erythema multiforme](#) – emedicine dermatology, the online textbook
- [Erythema multiforme](#) – British Association of Dermatologists

### Books about skin diseases:

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**Author:** In 2009, Dr Delwyn Dyal-Smith updated an original article written by Dr Amanda Oakley.

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## Erythema nodosum

Erythema nodosum is a skin condition where red lumps form on the shins, and less commonly the thighs and forearms. It is a type of [panniculitis](#).

Erythema nodosum



[More images of erythema nodosum ...](#)

Three to six women are affected for each man with erythema nodosum (EN). However the sex incidence before puberty is about equal. Most cases occur between the ages of 20 and 45, with a peak from 20 to 30. EN occurs occasionally in the elderly and in children.

## Causes

EN appears to be a hypersensitivity reaction with a number of different causes.

Common causes in New Zealand are:

- **Throat infections;** these may be due to [streptococcus](#), or viral in origin.



- Sarcoidosis**; EN is often associated with enlargement of the lymph nodes (bilateral lymphadenopathy) in the lungs in [sarcoidosis](#). This is known as Löfgren's syndrome. It may result in a dry cough or some shortness of breath.
- **Tuberculosis** (TB); EN occurs with the primary infection with [TB](#). TB in New Zealand is currently uncommon.
  - **Pregnancy** or the **oral contraceptive pill**; EN may occur after the first 2 or 3 cycles on the pill. EN may occur in pregnancy, clear after delivery, then recur in subsequent pregnancies.
  - **Other drugs**; other drugs which can cause EN include: sulphonamides, salicylates, other [nonsteroidal anti-inflammatory drugs \(NSAIDs\)](#), bromides, [iodides](#) and gold salts.
  - **Other causes**; there are many other causes of EN but these are uncommon in New Zealand.

## Clinical presentation of EN

EN may be preceded by an upper respiratory infection 7-14 days beforehand or by a longer period of feeling "below par", loss of weight and cough. Other symptoms depend on the cause of the EN.

Joint aches occur in over half of cases regardless of cause. The knee joints are almost always affected, the other large joints less commonly. Joint symptoms may persist for months afterwards but always resolve completely.

The EN lesions are ushered in by fever, general aching and feeling unwell. Red lumps appear on the shins or about the knees and ankle. They vary in size between a cherry and a grapefruit and in number from 2 to 50 or more. Usually there are about a dozen large lumps on the front and sides of the legs and knees; the thighs, outer aspects of the arms, face and neck are less frequently involved. At these other sites the lesions are smaller and more superficial. The lesions are oval patches which are slightly raised above the surrounding surface, the elevation increasing gradually towards the centre; they are hot and painful, bright red when they first come out, later becoming purple then fading through the colour changes of a bruise.

Lesions continue to erupt for about 10 days. The "bruising" colour-change starts in the second week, becomes most marked in the third week, then subsides at any time from the end of the third week to the sixth week. Aching of the legs and swelling of the ankles may persist for some weeks, especially if the patient does not rest up. New crops of EN may occur over a number of weeks. Rarely, 2 or 3 large lesions merge to form a crescentic ring, which spreads for some days before fading. Conjunctivitis may occur.

## Tests

If you have EN, your doctor is likely to arrange some tests. These may include:

- Throat swab
- Sputum or gastric washing if TB is suspected
- Complete blood count and ESR
- ASO titre (a test for streptococcal infection)
- Chest X-ray
- Virus studies
- Yersinia titres
- Mantoux test

## Treatment

- Bed rest is advised for severe EN.
- Firm supportive bandages or stockings should be worn.
- Aspirin or other anti-inflammatory medication.
- A course of [potassium iodide](#) is often effective in clearing it.

Mild cases subside in 3 weeks, more severe ones in about 6 weeks. Cropping of new lesions may occur within this



time, especially if the patient is not resting.

## Related information

### Other websites:

- [Erythema nodosum](#) – emedicine dermatology, the online textbook

### Books about skin diseases:

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## Guttate psoriasis

Guttate psoriasis is characterised by multiple tiny areas of psoriasis that tend to affect most of the body. 'Gutta' is Latin for tear drop; guttate psoriasis looks like a shower of red, scaly tear drops that have fallen down on the body. Lesions are usually concentrated around the trunk and upper arms and thighs. Face, ears and scalp are also commonly affected but the lesions may be very faint and quickly disappear in these areas. Occasionally there may be only a few scattered lesions in total.

The diagnosis of guttate psoriasis is made by the combination of history, clinical appearance of the rash, and evidence for preceding infection.

The rash comes on very quickly, usually within a couple of days, and may follow a streptococcal infection of the throat. It tends to affect children and young adults and has a good chance of spontaneously clearing completely.

Guttate psoriasis







Image provided by Dr Trevor Evans

[More images of guttate psoriasis ...](#)

## Treatment of guttate psoriasis

Management may include:

- Treatment of an underlying [streptococcal](#) infection with antibiotics
- [Phototherapy](#)
- Topical agents including mild [topical steroids](#), [coal tar](#) and [calcipotriol](#)

Guttate psoriasis rarely requires treatment with oral medications.

## Related information

### References:

### On DermNet NZ:

- [General information about psoriasis](#)
- [Chronic plaque psoriasis](#)
- [Flexural psoriasis](#)
- [Scalp psoriasis](#)
- [Palmoplantar psoriasis](#)
- [Nail psoriasis](#)
- [Palmoplantar pustulosis](#)
- [Pustular psoriasis](#)
- [Erythrodermic psoriasis](#)
- [Psoriatic arthritis](#)
- [Treatment of psoriasis](#)

### Other websites:

- [Guttate psoriasis](#) – emedicine dermatology, the online textbook
- [Guttate Psoriasis](#) – emedicine consumer health

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## Hereditary haemorrhagic telangiectasia

### What is hereditary haemorrhagic telangiectasia?

Hereditary haemorrhagic telangiectasia (HHT) is also known as Osler-Rendu-Weber syndrome. It is a rare inherited disorder that affects blood vessels throughout the body and is characterised by a tendency for bleeding (haemorrhage, American spelling 'hemorrhage'), in particular recurrent epistaxis (nosebleeds), and skin telangiectasia (skin lesions resulting from dilation of blood vessels).

The diagnostic criteria for HHT are:

1. Spontaneous recurrent nosebleeds
2. Multiple telangiectases on skin and mucous membranes
3. Involvement of internal organs
4. An affected parent, sibling or child

### What causes HHT?

The two major types of HHT are HHT1 and HHT2. They are caused by mutations in the endoglin (ENG) and activin receptor-like kinase type 1 (ACVLR1) genes found on chromosome 9 and 12 respectively. Two other genes have also been identified. A defect in just one of these genes causes an abnormality in the formation of blood vessels, which may easily rupture and bleed. These abnormal blood vessels are known as telangiectases, or arteriovenous malformations (AVM) if larger blood vessels are involved.

### Who gets HHT?

HHT is a rare autosomal dominant condition, which means that only one abnormal gene needs to be inherited from



one affected parent to express the disease. HHT is often passed from generation to generation as each child of a person with HHT has a 50% chance of getting the disease. However, the signs and symptoms of HHT within a single family can vary considerably. One family member may suffer from severe recurrent nosebleeds whilst another with HHT may have minimal symptoms.

## What are the signs and symptoms of HHT?

The most common sign of HHT is telangiectases in the nose and the most common symptom is recurring nosebleeds. The first sign of HHT usually does not occur until puberty or adulthood with the average age of the first nosebleed occurring at 12 years. Bleeding may occur as often as everyday or as infrequently as once a month. Recurrent nosebleeds are seen in 50-80% of patients with HHT.

Telangiectases in other parts of the body is not usually seen until after puberty and is most apparent in people aged between 20 and 40 years. It occurs in about 95% of patients with HHT. Telangiectasia of the skin and mucous membranes has the following characteristics.

- Appearance of small red to purplish spots or dark red lacy lines on the skin and mucous membranes
- Lesions may occur anywhere but especially on the upper half of the body including the face, inside the mouth and nostrils, lips, ears, conjunctiva of the eyes, forearms, hands and fingers. They are often conspicuous in the nail beds.
- Lesions may initially appear subtle but become quite prominent by late adulthood
- Telangiectases on the skin and mouth can bleed but are less likely to than those in the nose

In addition to visible telangiectases, abnormal blood vessel formation may occur in many other organs. Telangiectases can be found anywhere in the gastrointestinal (GI) system, including the oesophagus, stomach, and small and large intestines. GI bleeding occurs in about 25% of patients with HHT and the risk is increased in patients older than 50 years. Black or bloody stools and/or anaemia (low blood count) are the presenting symptoms. Other organs that may be affected include the lungs (AVM in the lungs occur in about 30% of patients with HHT) and central nervous system (brain and spinal AVM).

Hereditary haemorrhagic telangiectasia



## Can HHT be treated?

HHT cannot be prevented but most cases can be treated symptomatically. One third of the cases of HHT are mild, one third are moderate, and one third are severe. Mild cases usually require no treatment. HHT should be treated if it is



causing significant problems, such as severe and/or frequent nosebleeds, or if there is a high risk of causing other problems, such as a stroke from a lung AVM.

- Nosebleeds can be treated with laser coagulation therapy or surgically with nasal septum skin transplants (septal dermoplasty)
- Telangiectases or lesions of the skin can be treated with cautery or dye laser surgery, best performed by a dermatologist
- GI bleeding causing anaemia is treated with iron replacement therapy. If this is ineffective then blood transfusion and endoscopic treatments may be performed.

## Related information

### References:

- [OMIM – Online Mendelian Inheritance in Man](#) (search term Hereditary haemorrhagic telangiectasia)
- Book: Textbook of Dermatology. Ed Rook A, Wilkinson DS, Ebling FJB, Champion RH, Burton JL. Fourth edition. Blackwell Scientific Publications.
- [Osler-Weber-Rendu Syndrome](#) – emedicine dermatology, the online textbook

### On DermNet NZ:

- [Ataxia-telangiectasia](#)
- [Generalised essential telangiectasia](#)

### Other websites:

- [The Hereditary Hemorrhagic Telangiectasia Foundation](#) (USA)
- [International Website Telangiectasia Self Help Group](#) (UK)

### Books about skin diseases:

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**Author:** Vanessa Ngan, staff writer

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## Hirsutism

Hirsutism (or hirsutes) is the term used for increased hair growth in women. It refers to a male pattern of hair, i.e. in the moustache and beard areas (chin), or occurring more thickly than usual on the limbs. Hirsutism is very common.

There may be hairs on the chest or an extension of pubic hair on to the abdomen and thighs. What is considered normal for a woman, and what is considered hirsute, depends on cultural factors and race.

Hirsutism



## What is the cause of hirsutism?



Hirsutism is nearly always genetic in origin. Female and male relatives may also have more hair than the average so hirsutism is normal in that family. Unfortunately in our society, to be hirsute is thought unattractive.

The only reason that fashion models appear to have little hair, is that they spend a lot of time and energy removing it.

Although some women with hirsutism have increased amounts of male hormones or androgens (e.g. testosterone), most have normal levels. The problem in these women is that the hairs are more sensitive than normal to small amounts of hormone. The hairs grow more quickly and thicker in response to it. The increased hair growth is usually first noted in late teenage years and tends to gradually get more severe as the woman gets older.

The main conditions associated with excessive androgens are [polycystic ovaries](#) and less often, [congenital adrenal hyperplasia](#).

## Investigations

Blood tests may be arranged to evaluate male hormone levels, which could be due to a tumour or overactivity of the pituitary gland, the adrenal gland or the ovary. Other causes of excessive hair and associated medical problems may also need to be evaluated. The tests may include one or more of the following:

- Total and free testosterone
- Sex hormone binding globulin
- Free androgen index
- Dihydroxyepiandrosterone sulfate
- Androstenedione (drawn after 10 a.m.)

If there is also menstrual disorder, additional tests may be requested.

- Luteinizing hormone (LH) and follicle stimulating hormone (FSH)
- Oestradiol, 17-hydroxy progesterone
- Prolactin

Tests may be requested to evaluate other related aspects of health, for example:

- Thyroid function
- Cortisol or overnight dexamethasone test
- Glucose
- Lipids (cholesterol and triglyceride)

A pelvic examination and abdominal / transvaginal ultrasound examination of the ovaries may be necessary as one common cause of hirsutism is [polycystic ovaries](#).

## Physical methods of hair removal

### Bleaching

Bleaching makes the excessive hair less obvious.

### Depilatory creams

Depilatory creams are generally based on thioglycolate (also used in perming solutions). A thick layer is applied for 15-30 minutes to the hairy area, then wiped off and the hair comes off with the cream. Depilatory creams can irritate and cause dermatitis.

### Shaving

Shaving, if necessary twice daily, will prevent unsightly stubble. Shaving does not make the hair grow more thickly.



## Waxing

[Waxing](#) needs to be repeated every six weeks. The warm wax hardens on the skin and as it is stripped off, the hairs are pulled out with it from the roots.

## Electric hair removers

These remove the hair by a combined cut and pull.

## Electrolysis/thermolysis

[Electrolysis](#) or thermolysis may result in permanent hair loss but it takes time. A small probe is inserted along each hair, and a small electrical or heat discharge destroys the hair. A small area is treated every few weeks. It can be expensive if the area affected is extensive. Unskilled treatment may cause scarring.

## Laser therapy

New long wavelength [lasers](#) and [intense pulsed light](#) are under investigation for the removal of body hair. Time will tell how effective these will be.

# Complications of physical methods of hair removal

[Folliculitis](#) is an unfortunate risk of plucking, shaving, and waxing. The treated hair follicles become inflamed, and painful pustules may develop.

Folliculitis may take weeks to settle. Hair removal has to be stopped, at least temporarily.

Folliculitis due to hair removal



# Medical Treatment

[Hormonal treatment](#) using antiandrogen medicines (which counteract the male hormone) may be used for women with moderate or severe hirsutism. In many cases the hair growth slows down and the hairs become thinner and less noticeable. It takes between six and twelve months to notice much difference, and then the medicine should be continued for several years.

## Spironolactone

Spironolactone 50-200 mg daily can slowly reduce excessive hair growth. It is sometimes combined with the oral contraceptive pill. Side effects include tender breasts and irregular menstrual bleeding.

## Oral contraceptive

Although several low dose combined birth control pills may be helpful, it is best to select one that has been specifically formulated to treat hirsutism. These contain oestrogen and an antiandrogenic progesterone: cyproterone (Diane<sup>TM</sup>-35, Estelle<sup>TM</sup> 35), drospirenone (Yasmin<sup>TM</sup>, Yaz<sup>TM</sup>) or dienogest (Valette<sup>TM</sup>). Side effects include spotting (bleeding between periods), tender breasts, nausea and headaches, especially in the first few months. The oral contraceptive pill is not suitable for everyone. Please refer to the New Zealand Ministry of Health ([Medsafe](#)) advice on the use of combined oral contraceptives.

## Cyproterone



Larger doses of [cypoterone](#) i.e. 50-200 mg for 10 days each cycle, are combined with the oral contraceptive pill and are very effective for most women with hirsutism. Side effects include weight gain, depression, and loss of libido. Specialist approval is required for prescription in New Zealand.

Hair removal creams containing [eflornithine](#) are available in some countries.

## Related information

### On DermNet NZ:

- [Polycystic ovarian syndrome](#)
- [Hypertrichosis](#)
- [Hair removal techniques](#)

### Other websites:

- [Hirsutism](#) – emedicine dermatology, the on-line medical reference textbook.
- [PCOS and Hirsutism](#) – Center for Fertility and Reproductive Medicine
- [Hirsutism](#) – British Association of Dermatologists
- [Unwanted facial hair](#) – Skin Care Guide

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## Intraepidermal squamous cell carcinoma

Intraepidermal squamous cell carcinoma (intraepidermal SCC) is often known as Bowen disease, Bowen's disease or cutaneous squamous cell carcinoma in situ. It is a common type of skin cancer.

[Squamous cell carcinoma](#) (SCC) is a cancer derived from squamous cells, the flat cells that make up the outside layers of the skin (the epidermis). 'In situ' means the malignant cells are confined to cell of origin i.e., the epidermis.

The development of a lump or bleeding may indicate progression into invasive SCC and occurs in about 5% of intraepithelial SCC lesions.

### What does intraepidermal SCC look like?

Intraepidermal SCC presents as one or more irregular, flat, red and scaly patches of up to several centimetres in diameter. Although intraepidermal SCC may arise on any area of skin, the lesions are most often diagnosed on sun exposed sites such as the ears, the face, the hands and the lower legs.

Intraepidermal squamous cell carcinoma



[More images of intraepidermal SCC ...](#)



Rarely, intraepidermal SCC may start to grow under a nail, when it results in a red streak (erythronychia) that later may destroy the nail plate.

### Intraepidermal squamous cell carcinoma of the nail



© Dr Ph Abimelec – [dermatologue](#) Used by DermNet NZ with permission

## What is the cause of intraepidermal SCC?

Intraepidermal SCC arises in aging skin. It may be caused by:

- Sun exposure: intraepidermal SCC is most often found on sun exposed sites of fair skinned individuals. This is because ultraviolet radiation damages the skin cell nucleic acids (DNA) resulting in a mutant clone of the gene p53. This sets off uncontrolled growth of the skin cells. Ultraviolet radiation also suppresses the immune response preventing recovery from this damage.
- [Arsenic](#) ingestion: this may result in multiple areas of intraepidermal SCC on the trunk and limbs some years after exposure.
- Ionising radiation: intraepidermal SCC was common on the hands of radiologists early in the 20th century.
- Human papillomavirus (HPV) infection: this rarely causes intraepidermal SCC. However, HPV infecting genital sites is the cause of [vulval](#) and [penile](#) intraepithelial neoplasia or mucosal SCC in situ.

## Treatment of intraepidermal SCC

As intraepidermal SCC is confined to the surface of the skin, there are various ways to remove it.

### Cryotherapy

[Cryotherapy](#) means removing a lesion by freezing it, usually with liquid nitrogen. Cryotherapy may be suitable for small, flat patches of intraepidermal SCC.

### Superficial skin surgery

Superficial skin surgery refers to [shave, curettage, & electrosurgery](#). The lesion is sliced off or scraped out, then the base is cauterised. The wound usually heals rapidly without the need for stitches.

### Fluorouracil cream

[5-Fluorouracil cream](#) contains a cytotoxic agent. The cream may be applied to intraepidermal SCC for 4 to 12 weeks. It causes a vigorous skin reaction that may ulcerate.

### Imiquimod cream

[Imiquimod](#) is an immune response modifier in a cream base. Applied five times weekly for six to sixteen weeks, it will



clear most patches of intraepidermal SCC but is not yet licensed for this purpose (June 2008).

## Photodynamic therapy

[Photodynamic therapy](#) (PDT) refers to treatment with a photosensitiser (a porphyrin chemical) that is applied to the affected area prior to exposing it to a strong source of visible light. The treated area develops a "burn" and then heals over a couple of weeks or so. [Metvix PDT](#) is now available to treat superficial skin cancers in New Zealand. It appears to provide high cure rates for intraepidermal SCC on the face or lower legs, but is not yet licensed for this purpose (June 2008).

## What happens after treatment?


Intraepidermal SCC may recur months or years after treatment. It may be treated again by the same or another method.

Patients who have been treated for intraepidermal SCC are at risk of developing new lesions of intraepidermal SCC. They are also at increased risk of other skin cancers, especially [squamous cell carcinoma](#), [basal cell carcinoma](#) and [melanoma](#). Arrange a complete skin examination from time to time. Ask your [dermatologist](#) or GP to check any persisting or growing lumps or sores or otherwise odd-looking skin lesions. Early detection means easier treatment, and less scarring.

[Protect your skin](#) from excessive exposure to the sun. Stay indoors or under the shade in the middle of the day. Wear covering clothing. Apply broad spectrum [sunscreens](#) to exposed skin if you are outdoors for prolonged periods, especially during the summer months.

## Related information

### References:

-  [Guidelines for Management of Bowen's Disease: update 2006 \(NH Cox, DJ Eedy, CA Morton\). BJD, Vol. 151, No.1, January 2007 \(p11-21\)](#) – British Association of Dermatologists

### On DermNet NZ:

- [Squamous cell carcinoma](#)
- [Skin cancer](#)

### Other websites:

- [Best Treatments](#) from the BMJ: clinical evidence about squamous cell carcinoma for patients
- [intraepidermal SCC](#) – emedicine dermatology, the online textbook
- [Bowen's disease](#) – British Association of Dermatologists

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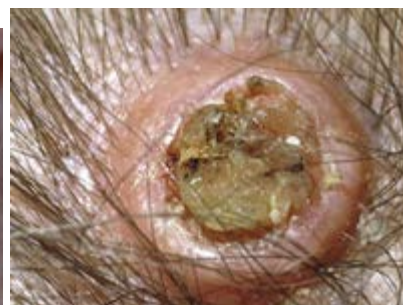
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## Keratoacanthoma

A keratoacanthoma is a false [skin cancer](#) that looks like a little volcano.

A keratoacanthoma often starts at the site of a minor injury to sun damaged skin. At first it may appear as a small pimple or boil and may be squeezed but is found to have a solid core. It then grows rapidly and by the time it is brought to the attention of the doctor may be up to 2cm in diameter.

Keratoacanthoma



©R Suhonen

[More images of keratoacanthoma ...](#)

## What causes keratoacanthoma?

Past sun exposure certainly plays a role. It appears that keratoacanthomas arise from a single hair follicle as they are only seen on hair-bearing skin, not on the palms, for instance. A minor injury seems to be required to trigger off a keratoacanthoma but this is often either not apparent or unremembered by the patient. Cells start multiplying in the hair follicle and the cell mass grows into a keratoacanthoma.



Some keratoacanthomas appear to be related to infection with human papilloma virus, the cause of [warts](#).

Untreated, a true keratoacanthoma will go on growing for several months, reach a maximum size then self-destruct over several more months.

Unfortunately a keratoacanthoma can look exactly like a true skin cancer, a [squamous cell carcinoma](#) (SCC), or less commonly like a [basal cell carcinoma](#) (BCC).

## Multiple keratoacanthomas

There are some rare conditions in which multiple keratoacanthomas appear. These are:

- **Ferguson-Smith familial keratoacanthoma** More common in men, there are large and sometimes ulcerated self-healing lesions.
- **Grzybowski eruptive keratoacanthomas** Thousands of very itchy keratoacanthomas appear on the skin and mucosal surfaces and can result in significant deformity.

Management requires oral medications such as [acitretin](#), [methotrexate](#) or [cyclophosphamide](#).

## Treatment

If you have a keratoacanthoma, seek the advice of your doctor, [dermatologist](#) or plastic surgeon.

Keratoacanthomas should be treated for several reasons. Firstly, it is not always possible to be sure the lesion is a keratoacanthoma and not a true skin cancer. A pathologist may report squamous cell carcinoma when the dermatologist has been fairly sure that the lesion is a keratoacanthoma. Secondly, the patient wishes to be rid of what is usually an unsightly, often tender and worrisome lesion as soon as possible. Finally, the scar which results from treating a keratoacanthoma is often better than if it is left to resolve spontaneously.

- **Freezing** If a keratoacanthoma is small it may be treated by [freezing](#) with liquid nitrogen with a spray or on a cotton wool swab. Following this the treated site will swell, may or may not blister, then dries out to form a scab which takes about 2 weeks to come off, longer on the limbs.
- **Curettage and cautery** [Curettage and cautery](#) is sometimes used for thicker lesions. A little anaesthetic is injected around the base of the lesion and it is then scraped out with a sharp spoon. The base of the keratoacanthoma is cauterized with an instrument similar to a soldering iron. Following this healing is usually rapid and the scab comes off in about 3 weeks to leave a slightly depressed, pink to purple scar. This scar then pales down and remodels to eventually leave a usually very acceptable cosmetic result. Healing takes longer with larger lesions and on the lower legs where it can take up to 2 months.
- **Excision** [Excision](#) is another common method of removing a keratoacanthomas. After injecting local anaesthetic, the affected area is cut out in an ellipse ensuring complete removal. The resulting defect is then stitched up. The stitches are removed a week or so later, leaving a linear scar. Rarely, Mohs microscopically controlled surgery may be required for larger keratoacanthomas, especially if they have recurred.
- **Radiotherapy** - Sometimes a large keratoacanthoma is treated by [radiotherapy](#). Several visits over a period of days are usually required. The treatment is quite painless. A scab then forms and drops off after several weeks.

## Follow-up

Normally there will be no further problem with a keratoacanthoma after treatment. Rarely, a recurrence will form, usually on the edge of the scar. In this case the lesion can be readily re-treated, usually by the same method.

Patients with keratoacanthomas are at risk of further similar lesions and other skin cancers; seek your doctor's help promptly if you develop any growing lumps or sores which fail to heal.



## Related information

### On DermNet NZ:

- [Skin lesions](#)
- [Grzybowski eruptive keratoacanthomas](#)
- [Solar keratoses](#)
- [Squamous cell carcinoma](#)
- [Basal cell carcinoma](#)
- [Melanoma](#)
- [Sun protection](#)

### Other web sites:

- [Keratoacanthoma](#) – emedicine dermatology, the online textbook
- [Keratoacanthoma](#) – British Association of Dermatologists

### Books about skin diseases:

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## Lichen sclerosis

Lichen sclerosis is chronic skin disorder that most often affects the genital and perianal areas. It usually persists for years, and can cause permanent scarring. There is no known cure, although most people are substantially improved and quite comfortable with treatment.

Lichen sclerosis (LS) is ten times more common in women than in men. It can start at any age, although it is most often seen in women over 50. Prepubertal girls can also be affected. It may cause no symptoms but it can be itchy, sometimes severely so. It can develop after an injury to the affected area. It may follow or co-exist with another skin condition such as [lichen simplex](#), [candidiasis](#) or [erosive lichen planus](#).

### What does it look like?

Lichen sclerosis presents as white crinkled or thickened patches.

#### Vulval lichen sclerosis

In women, lichen sclerosis results in a white thickening of the skin of the vulva. It can be localised to one small area or involving the perineum, labia majora, labia minora, fourchette and clitoris. Sometimes the clitoris disappears, the labia (lips) can shrink and the entrance to the vagina tightens. Lichen sclerosis never affects inside the vagina.

The affected skin can be unbearably itchy (the symptom known as [pruritus vulvae](#)) and/or sore ([vulvodynia](#)). Sometimes bruises, blood blisters and ulcers appear, after scratching, or on their own.

Sexual intercourse can be very uncomfortable and may result in splitting of the skin (fissuring). The skin around the anus may be involved, which may cause discomfort passing bowel motions, and aggravate any tendency to constipation.

Lichen sclerosis is associated with an increased risk of [vulvar cancer](#), which presents as a slowly-growing lump or a sore that doesn't heal. It may affect up to 5% of patients with vulvar lichen sclerosis. In some cases it is associated



with [genital warts](#) (human papillomavirus) and [vulval intraepithelial neoplasia](#) (VIN).

[Images of vulval lichen sclerosis...](#)

[Images of perianal lichen sclerosis ...](#)

### Penile lichen sclerosis

In men, lichen sclerosis usually affects the tip of the penis, which becomes firm and white (also called balanitis xerotica perstans). The urethra may narrow such that it is difficult to pass urine, resulting in a thin stream. Sometimes the passage has to be widened with a special operation, called meatal dilation. The foreskin may become difficult to retract (phimosis) and a circumcision may be needed.

Penile lichen sclerosis may rarely predispose to [penile cancer](#). Long term follow-up is therefore recommended.

[Images of penile lichen sclerosis ...](#)

### Other skin sites

Lichen sclerosis may also affect non-genital areas in 10% of patients with vulval disease. Six percent of affected men and women have no genital involvement. One or more white patches may be found on the inner thigh, buttocks, under the breasts, neck, shoulders and armpits. They often look like cigarette paper, with a wrinkled surface and waxy thickened feel. Less often they are scaly, bruised-looking, blistered or ulcerated. In these sites, lichen sclerosis is generally not itchy and it does not appear to predispose to cancer.

Non-genital lichen sclerosis



[More images of extragenital lichen sclerosis ...](#)

## What is the cause of lichen sclerosis?

The cause of lichen sclerosis is not fully understood and may include genetic, hormonal and infectious components. Lichen sclerosis is believed to relate to an autoimmune process, in which there are antibodies to a component of the skin. This is possibly extracellular matrix protein-1 (ECM-1) as antibodies to this protein have been detected in 75-80% of women with vulval lichen sclerosis.

Other autoimmune conditions such as thyroid disease (about 20% of patients), pernicious anaemia, [vitiligo](#), [alopecia areata](#) and [psoriasis](#) are reported to be more frequent than expected in patients who have lichen sclerosis and in their families.



## How is it diagnosed?

Often the diagnosis is made by a dermatologist or gynaecologist after a careful clinical examination. A [skin biopsy](#) is frequently recommended to confirm the diagnosis, as there are characteristic histopathological findings in lichen sclerosis. A biopsy also rules out other possible explanations for the skin condition such as [dermatitis](#), [lichen planus](#) and [vulval intraepithelial neoplasia](#). Sometimes these disorders may co-exist with lichen sclerosis.

During follow-up, your specialist may decide to perform another biopsy to evaluate areas of concern.

## Treatment

Strong [topical steroid](#) creams or ointments (especially clobetasol propionate) are very helpful for lichen sclerosis, especially when it affects genital areas. They should be applied very accurately to the affected areas for a few weeks or months. Over-use of steroid creams can result in skin thinning; it is most important to follow instructions carefully and to attend follow-up appointments regularly.

Most patients will be told to apply the steroid cream once a day initially. The doctor should reassess the treated area after a few weeks as the response to treatment is quite variable. The itch often settles within a few days but it takes weeks to months for the appearance to return to normal. Once the lichen sclerosis has resolved or skin thinning due to the cream has arisen, the cream should be used less often. Generally it will need to be continued on a regular basis (perhaps once a week) to prevent the lichen sclerosis recurring. In general, after initial more generous treatment, one 30g tube is expected to last about 6 months.

Wash gently in a shower or bath with plain water alone or with a [non-soap cleanser](#). Try to avoid rubbing and scratching. Some patients find it helpful to apply an emollient cream or petrolatum several times a day to relieve dryness or itching.

If the first topical steroid is not well tolerated or ineffective, another one should be used. An ointment may be preferred to a cream (or vice versa).

There are a variety of other treatments occasionally prescribed as well or instead of steroid creams. These include [calcipotriol cream](#), [topical](#) and systemic retinoids ([acitretin](#)), and [systemic steroids](#). The new immune modulating creams [tacrolimus](#) and [pimecrolimus](#) look promising for treating lichen sclerosis, but may be difficult to use because they tend to cause burning. There is also concern that these medications may have the potential to accelerate skin cancer formation in the presence of oncogenic human papilloma virus ([genital warts](#)). [Photodynamic therapy](#) has also been reported to be of benefit, but the procedure may be very painful.

Topical oestrogen creams are not effective for lichen sclerosis but may be prescribed for postmenopausal atrophy (dry, thinned and sensitive vulval and vaginal tissues due to hormonal deficiency).


If the vaginal opening has narrowed, it may need gentle stretching using dilators. Rarely, surgery is necessary to allow sexual intercourse. Unfortunately, the lichen sclerosis sometimes closes up the vaginal opening again after surgery has initially appeared successful.

Surgery to remove the entire vulva (vulvectomy) is reserved for the most severe cases or if there is vulvar cancer or pre-cancer (vulvar intraepithelial neoplasia or VIN).

## Related information

### References:



 [Guidelines for the Management of Lichen Sclerosus \(SM Neill, FM Tatnall, NH Cox\) BJD, Vol. 147, No. 4, October 2002 \(p640-649\)](#) – British Association of Dermatologists

## On DermNet NZ:

- [Genital skin conditions](#)
- [Pruritus vulvae](#)
- [Scleroderma](#)

## Other websites:

- [Lichen sclerosus et atrophicus](#) – emedicine dermatology, the online textbook
- [UK National Lichen Sclerosus Support Group](#)
- [Lichen Sclerosus](#) – British Association of Dermatologists

## Self-help books

- [The V Book: A Doctor's Guide to Complete Vulvovaginal Health](#)
- [The Vulvodynia Survival Guide: How to Overcome Painful Vaginal Symptoms & Enjoy an Active Lifestyle](#)



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## Oral leukoplakia

### What is oral leukoplakia?

Oral leukoplakia is the most common premalignant or potentially malignant disorder of the oral mucosa.

It is defined as a white patch or plaque of the oral mucosa that cannot be characterized clinically or pathologically as any other disease.

Oral leukoplakia is a clinical diagnosis of exclusion. Diseases to be excluded include [nicotine stomatitis](#), [candidiasis](#), [lichen planus](#), frictional keratoses, habitual cheek or lip biting, [lupus erythematosus](#), etc.

### Who does it affect?

Oral leukoplakia may affect about 0.5% of the world population, although it is likely to vary with gender, geography and ethnicity.

There is a strong association with tobacco [smoking](#) (six times more common in smokers than non-smokers) and alcohol intake (independent of drinking pattern or beverage type). It is also associated with betel quid chewing and [oral submucous fibrosis](#).

It usually appears in adult life with prevalence increasing with increasing age:

- found in less than 1% of men under 30 years of age
- 8% of men over 70 years of age
- 2% of women over 70 years of age
- rare before age 30, peaks after 50 years
- mainly affects middle aged to elderly men



non-smokers are likely to present at an older age.

In children, consider [dyskeratosis congenita](#) and hidrotic [ectodermal dysplasia](#).

## Clinical features of oral leukoplakia

An early lesion is a slightly elevated grey-white plaque either well defined or which blends in gradually with surrounding mucosa. It can be a localised solitary lesion or multifocal and diffuse.

Two clinical forms are recognised.

1. Homogeneous – refers to homogeneous uniform colour AND texture

- uniform white colour
- uniform flat, thin appearance

The surface may become leathery – smooth, wrinkled, corrugated or with shallow cracks. This form is usually asymptomatic.

2. Non-homogeneous – refers to irregularity of either the colour OR the texture

- predominantly white or white-red (erythroleukoplakia)
- irregular texture which can be flat, nodular, exophytic, warty

Variants of the non-homogeneous form have been described including nodular, verrucous (including proliferative verrucous) and speckled. This form may be associated with mild discomfort or localized pain.

The most common site affected is the inside cheeks (buccal mucosa) and then in decreasing order of frequency:

- gums (alveolar mucosa)
- lower lip
- floor of mouth (under tongue)
- sides or undersurface of tongue (lateral or ventral tongue)
- soft palate

Oral leukoplakia



## Association with squamous cell carcinoma (SCC)

A large proportion of [oral cancers](#) are associated with preceding longstanding oral leukoplakia and possibly 1% of oral leukoplakias overall become cancer. This figure is higher for the non-homogeneous form, especially the proliferative verrucous variant, which nearly always becomes cancerous.

There may be no change in appearance or symptoms in the early stages of cancer development. Classic changes of cancer are ulceration, induration/hardness, bleeding and tumour outgrowth.



Factors reported as associated with increased risk of SCC development:

1. Dysplasia (atypical changes) on histology is regarded as the most important factor. However it is important to note that dysplastic lesions can resolve spontaneously and nondysplastic lesions may develop into cancer.
2. Site – floor of mouth under the tongue and the sides/undersurface of tongue
3. Clinical type – speckled non-homogeneous, especially proliferative verrucous leukoplakia
4. Female sex
5. If the leukoplakia is NOT associated with tobacco use.
6. Long duration of disorder
7. Large lesion size
8. Presence of *Candida albicans* – but this is most commonly found in lesions at the angles of the mouth or top surface of tongue, which are rare sites for cancer development.

No molecular tumour markers have yet been found that can be used to predict cancer development in an individual or lesion. The role of human papillomaviruses ([wart](#) virus) has not yet been determined.

## How is the diagnosis made?

- [Biopsy](#) of clinically suspected oral leukoplakia is mandatory to: exclude recognised diseases, and to assess for the absence or presence and grade of dysplasia.
- It is appropriate to wait 2 weeks after first presentation to assess clinical response to initial treatment, e.g. for candida, change in tooth brushing habit, cessation of smoking, etc
- The biopsy may be incisional or excisional, single or multiple and may be done under local or general anaesthetic depending on site, number of biopsies required and type of biopsy.
- Biopsies should be taken from either a symptomatic area, or if asymptomatic then from red or indurated areas.
- The presence of dysplasia, carcinoma-in-situ and invasive carcinoma cannot always be predicted clinically.

The histopathology of oral leukoplakia is not diagnostic. Epithelial changes range from atrophy (thinned) to hyperplasia (thickened) and it may show hyperkeratosis. Dysplasia (atypical changes) may be mild, moderate, severe, carcinoma in situ or invasive carcinoma. The pathology report must comment on the absence or presence of dysplasia, and the severity.

## Treatment of oral leukoplakia

It is not known if early active treatment prevents the possible development of squamous cell carcinoma and there is a high recurrence rate after treatment.

1. Avoid aggravating habits eg quit smoking, and
2. Surgical [excision](#), or
3. CO2 [laser](#) – excision or vaporisation.
4. Possible other options – retinoids ([acitretin](#) or [isotretinoin](#)), [photodynamic therapy](#).

Lifelong follow-up is recommended whether or not the disorder has been treated:

- 3-12 monthly clinical checks
- Biopsy of suspicious changes

Oral mucosal examination must include the floor of mouth and sides of tongue using gauze to hold tip of the tongue and pull upwards and side to side. Most oral SCC develop in the sides & undersurface of the tongue, floor of mouth and back to the soft palate and tonsillar area.

## Related information



## References:

- Dermatology. Ed. Bologna, J et al. 2nd edition 2007. Mosby.
- van der Waal, Isaïc . Potentially malignant disorders of the oral and oropharyngeal mucosa; terminology, classification and present concepts of management. Oral Oncology 45 (2009) 317–323. [Medline](#).

## On DermNet NZ:

- [Oral cancer](#)
- [Hairy leukoplakia](#)

## Other websites:

- [Leukoplakia, Oral](#) – emedicine

## Books about skin diseases:

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**Author:** Dr Delwyn Dyall-Smith, Dermatologist

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5HT3 antagonists

5HT3 antagonists are antiemetics used mainly in the management of chemotherapy related nausea

Examples

- ondansetron
- granisetron









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## Pemphigoid gestationis

### What is pemphigoid gestationis?

Pemphigoid gestationis is a rare pregnancy-associated autoimmune skin disease that is characterised by an itchy rash that develops into blisters. It is most common during the second and third trimesters of pregnancy. It is also known as herpes gestationis although it has no association with the herpes virus whatsoever.

### What causes pemphigoid gestationis?

Pemphigoid gestationis is an autoimmune blistering disease, which basically means that an individual's immune system starts reacting against his or her own tissue. Immunoglobulin type G (IgG) autoantibodies (known as the PG factor) cause the damage.

In pemphigoid gestationis the target is a protein known as BPAG2 (also called BP180), found within the basement membrane, which is the zone between the epidermis and the dermis (the top and middle layers of skin). BPAG2 is within the hemidesmosome, the cell component that sticks the epidermal keratinocyte cells to the dermis.

The antibody attack results in inflammation and separation of the epidermis from the dermis allowing fluid to build up and create a blister.

### What are the signs and symptoms of pemphigoid gestationis?

Most patients present with an intensely itchy hive-like rash during mid to late pregnancy (13 to 40 weeks gestation).

- Initially there are itchy red bumps around the belly button
- Within days to weeks, the rash spreads to other parts of the body including the trunk, back, buttock, and arms. The face, scalp, palms, soles and mucous membranes are usually not affected.



- After 2-4 weeks, large, tense fluid-filled blisters form
- Some patients may have no blisters but instead have plaques (large raised patches)

Pemphigoid gestationis



In some cases, pemphigoid gestationis occurs throughout pregnancy. Symptoms may lessen or spontaneously resolve towards the end of the pregnancy but this is short-lived, as 75-80% of women will experience a flare-up around delivery. In most cases, symptoms resolve days later after giving birth, however in some, the disease remains active for months or years. Commencement of menstrual periods, use of oral contraceptives or further pregnancies may cause flare-ups.

## Tests for pemphigoid gestationis

Diagnosis generally requires a [skin biopsy](#), which shows typical features of subepidermal blistering, similar in microscopic appearance to [bullous pemphigoid](#) (BP) or epidermolysis bullosa acquisita (EBA). Pemphigoid gestationis is confirmed by direct immunofluorescence staining of the biopsy to reveal antibodies. It can be distinguished from BP and EBA using salt split samples of skin. In some cases, circulating antibodies can be detected by a blood test (indirect immunofluorescence test).

## Treatment of pemphigoid gestationis

The primary aim of treatment is to relieve itching, prevent blister formation and treat secondary infections. [Topical corticosteroids](#) are used in mild disease whilst [oral corticosteroids](#) are necessary in more extensive cases. Minimum effective doses should be used to reduce the risk of side effects to both mother and fetus. Oral [antihistamines](#) may be used to relieve itching.

In most cases, pemphigoid gestationis resolves spontaneously within days after delivery so treatment can be tapered off and stopped. Complications are rare but may include:

- Premature delivery
- Transient blistering on the infant that resolves with clearance of maternal antibodies (about 3-4 months)
- Secondary infection, which may leave scarring

## Related information



## References:

### On DermNet NZ:

- [Skin problems in pregnancy](#)
- [Blistering diseases](#)
- [Bullous pemphigoid](#)
- [Pruritic urticated papules and plaques of pregnancy](#) (PUPPP)
- [Epidermolysis bullosa acquisita](#)

### Other websites:

- [Pemphigoid gestationis](#) – emedicine dermatology, the online textbook
- [Online support group](#)
- [International Pemphigus & Pemphigoid Foundation](#)
- [Pemphigoid \(Herpes\) Gestationis](#) – British Association of Dermatologists

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**Author:** Vanessa Ngan, staff writer

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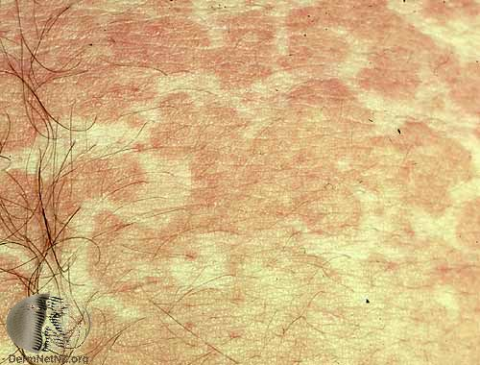


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## Pompholyx

Pompholyx is a common type of [eczema](#) affecting the hands (cheiropompholyx), and sometimes the feet (pedopompholyx). It is also known as *dyshidrotic eczema* or *vesicular eczema* of the hands and/or feet.

### Clinical features

The first (acute) stage shows tiny blisters (vesicles) deep in the skin of the palms, fingers, instep or toes. The blisters are often intensely itchy or have a burning feeling. The condition may be mild with only a little peeling, or very severe with big blisters and cracks which prevent work.

The later and more chronic stage shows more peeling, cracking, or crusting. Then the skin heals up, or the blistering may start again. One site may be blistering, while another is dry and cracked.

Severe pompholyx around the nail folds may cause [nail dystrophy](#), resulting in irregular ridges and chronic [paronychia](#) (nail fold swelling).

Pompholyx







More images of [pompholyx](#) ...

## What is the cause of pompholyx?

The exact cause is not known. Some investigators consider it is caused by abnormal sweating.

## Complications

Secondary infection with [staphylococcal bacteria](#) is not infrequent. The result is pain, redness, swelling and crusting or pustules.

Infected pompholyx



## Aggravating factors

As in other forms of [hand dermatitis](#), pompholyx is aggravated by contact with irritants such as water, detergents and solvents. Contact with them must be avoided as much as possible and protective gloves worn to prevent additional [irritant contact dermatitis](#). Some people with pompholyx are found to be allergic to [nickel](#), a common metal. Nickel allergy can be detected by [patch testing](#). These patients must try not to touch nickel items.

Pompholyx often runs a chronic course, but may go away for long periods. It often reappears after a period of nervous tension, worry or stress. Unfortunately pompholyx does not have any quick sure cure.

## Treatment



Treatment varies with the stage of the disease.

## Cool compresses

Soaks or compresses using weak solutions of Condy's crystals ([potassium permanganate](#)), aluminium acetate, or vinegar in water, are applied for 15 minutes four times a day. This will dry up blisters. Compresses are not suitable for dry eczema.

## Emollients

[Emollients](#) or hand creams, eg. dimeticone barrier cream, should be applied liberally and frequently to keep the skin soft.

## Topical steroid

Potent [topical steroids](#) should be applied to the affected areas nightly. They help reduce inflammation and itching. The more potent products should not be used for more than two weeks unless your doctor advises otherwise. Steroid creams are used when the skin is blistered or weeping. Steroid ointments are used for the chronic dry stage.

## Antibiotics

Antibiotics such as [flucloxacillin](#) should be prescribed by your doctor for secondary infection.

## Systemic steroids

Sometimes cortisone preparations are prescribed by tablet or injection for severe cases. The condition clears dramatically but may recur just as severely after the medication is stopped. Long term treatment with these [systemic steroids](#) is rarely advisable because of undesirable side effects.

## PUVA therapy

[PUVA](#) therapy can be useful in selected cases. This is a special kind of ultraviolet (UV) treatment. Several times weekly the affected areas are soaked in a special solution (psoralen), before exposure to long wave UV light. Treatment is usually continued for several months. Usually the measures described result in satisfactory control. Sooner or later the eruption subsides and disappears.

Other medications used occasionally for pompholyx include;

- [methotrexate](#)
- [dapsone](#)
- [azathioprine](#)
- [botulinum toxin](#) (to prevent sweating)

## Related information

### On DermNet NZ:

- [Dermatitis](#)
- [Hand Dermatitis](#)
- [Hand care in healthcare workers](#)
- [Irritant contact dermatitis](#)



- [Nickel](#)
- [Patch testing](#)
- [Topical steroids](#)
- [Systemic steroids](#)
- [PUVA](#)

## Other websites:

- [AllAllergy.Net](#): Allergy and intolerance information resource
- [Dyshidrotic eczema](#) – emedicine dermatology, the online textbook

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## PUPPP

The term PUPPP is short for *Pruritic Urticarial Papules and Plaques of Pregnancy*, a skin condition also known as *Polymorphous Eruption of Pregnancy* or *Polymorphic eruption*. It is an itchy, bumpy rash that starts in the stretch marks of the abdomen in the last 3 months of [pregnancy](#) then clears with delivery.

### What causes PUPPP?

PUPPP is thought to be related to stretching of the skin on the abdomen. Somehow the rash develops as a sort of "allergy" to the stretch marks and spreads elsewhere on the body. Supporting the stretch mark theory are the following observations:

- Most cases begin in the last 3 months, especially the last 5 weeks, when the stretching is greatest. It is rare for PUPPP to begin after delivery.
- PUPPP is most common in a first pregnancy, when the abdomen is tightest.
- The rash usually starts around the umbilicus where stretching of the abdomen is greatest.
- On average, patients with PUPPP have greater weight gain, babies that are heavier than normal and an increased chance of having twins.

Another theory considers low level traffic of fetal cells within the mother's circulation, which appears increased in women with PUPPP and may persist for some time after the baby has been born.

### What are the features of PUPPP?

Small, pink, raised spots (papules) appear in the stretch marks around the umbilicus. There is often a pale halo around the papules. These papules coalesce to form large red, raised (urticarial) patches (plaques) which spread to involve the buttocks and thighs, and sometimes the arms and legs. Lesions on or above the breasts are rare.



PUPPP is very itchy (pruritic) and patients find it difficult to sleep at night.

Polymorphic eruption of pregnancy



## Does PUPPP affect the baby?

Rarely, the baby can be born with a mild PUPPP rash but this soon fades. PUPPP does not cause any other problem with the baby.

## How long does PUPPP last?

PUPPP continues until delivery then usually resolves within a few weeks. Rarely, it may persist for longer. In some cases, this relates to retained placental products.

## Treatment

There is no curative treatment for PUPPP (apart from delivery!). Symptoms can be controlled using:

- [Emollients](#) (moisturisers) applied liberally and frequently as required.
- [Topical steroids](#) applied thinly twice daily to the red itchy patches.
- [Antihistamines](#) - conventional antihistamine tablets appear safe in late pregnancy (though they may make the baby drowsy on delivery).

Discuss your treatment with your doctor, or ask to be referred to a [dermatologist](#).

## Can PUPPP recur with future pregnancies?

This is very uncommon. If it occurs the PUPPP is likely to be milder.

## Related information

### On DermNet NZ:

- [Skin problems in pregnancy](#)

### On other websites:

- [PUPPP](#) – emedicine dermatology, the on-line textbook.
- [Polymorphic Eruption of Pregnancy](#) – British Association of Dermatologists

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## Scalp psoriasis

Scalp psoriasis may occur in isolation or with any other form of psoriasis. The back of the head is a common site but multiple discrete areas of the scalp or the whole scalp may be affected. Scalp psoriasis is characterised by thick silvery white scale on patches of very red skin. It may extend slightly beyond the hairline. Scalp psoriasis, even though often adequately camouflaged by the hair, is often a source of social embarrassment due to flaking of the scale and severe 'dandruff'. Scalp psoriasis may not cause any symptoms at all or may be extremely itchy. It tends to be a chronic problem, lasting many years.

In very severe cases there may be some temporary mild localised hair loss but scalp psoriasis does not cause permanent balding.

Scalp psoriasis



[More images of scalp psoriasis ...](#)

## Sebopsoriasis

Sebopsoriasis is an overlap between psoriasis and another common skin condition, [seborrhoeic dermatitis](#). There tends



to be less silvery scale than psoriasis and more yellowish, greasy scale. It also tends to localise to the scalp, face and anterior chest in a similar pattern to that seen in seborrhoeic dermatitis. Sebo-psoriasis has a deeper red colour, more defined margins and a thicker scale than typically seen in seborrhoeic dermatitis alone.

## Pityriasis amiantacea

[Pityriasis amiantacea](#) is a condition of the scalp characterised by thick, yellow-white scales densely coating the scalp skin and adhering to the scalp hairs as they exit the scalp. They are arranged in an overlapping manner like tiles on a roof or flakes of asbestos, hence the name. The underlying scalp skin may appear normal, aside from the scale, or may be reddened or scaly. Pityriasis amiantacea is often present without any obvious underlying cause, but may be associated with psoriasis, [lichen simplex](#) or seborrhoeic dermatitis.

Pityriasis amiantacea usually affects only part of the scalp but may occasionally involve the whole scalp. Young girls may have localised pityriasis amiantacea extending into the scalp from areas of chronic fissures in the skin behind the ears. It may extend from an area of lichen simplex of the scalp.

Some hair loss is common in areas of pityriasis amiantacea but hair regrows normally if the condition is effectively treated. This hair loss is sometimes aggravated by the difficulty in combing the hair due to the very adherent, thick scale at the base of the hair shafts. If additional complications such as infection occur then hair loss may be associated with scarring and be permanent.

The term "tinea amiantacea" is incorrect, because fungal infection, [tinea capitis](#), is a very rare reason for this type of scaling.

## Scalp care

Scalp psoriasis requires slightly different regimes from psoriasis affecting the skin elsewhere. This is due to hair, which makes application of many topical products difficult and protects the scalp from the effects of ultraviolet light. Unfortunately, many scalp treatments for scalp psoriasis are messy and smelly. Most treatments will need to be used regularly for several weeks before a benefit is seen.

Special medicated [shampoos](#) can be purchased from the chemist.

- [Coal tar](#) shampoos are suitable for most patients with scalp psoriasis.
- [Ketoconazole](#), ciclopirox, zinc pyrithione and other antifungal shampoos are effective for dandruff and seborrhoeic dermatitis. They have varying effect in seborrhopiasis and psoriasis.

The shampoos work best if rubbed into the scalp well, and left in for 5 or 10 minutes and then reapplied. They are safe for daily use but may irritate if applied more than twice weekly. If you dislike the smell of [coal tar](#), try shampooing again with a favourite brand, and use a conditioner.

More severe cases require leave-on scalp applications.

- Alcohol-based, foam or lotion forms of [topical steroid](#) and [calcipotriol](#) can reduce redness and itch but they don't lift scale very well. Use topical steroids intermittently; overuse results in more extensive and severe psoriasis.
- [Salicylic acid](#) and [coal tar](#) creams work much better, but are messy. Coconut oil compound ointment is a combination of coal tar, salicylic acid and sulphur and seems particularly effective. Leave on for at least an hour and shampoo off later. Most people rub the cream into the plaques at night and wash it off in the morning.
- [Dithranol](#) may be effective but is difficult to use and may be messy as it stains hair and fabrics.

Use the scalp preparation daily at first then as the condition improves, reduce the frequency. Unfortunately in many cases the scale soon builds up again, so the creams may have to be applied regularly to keep the scalp clear.



Cutting hair short helps control scalp psoriasis, probably by making the treatments easier to apply, but is not appealing to everyone.

[Phototherapy](#) is effective for chronic plaque psoriasis but difficult to deliver to the scalp. Special targeted devices and [UVB](#) combs have been devised, and appear very helpful. In some cases prolonged clearance has resulted from a course of treatment.

Systemic agents may be justified for a few patients with severe scalp psoriasis that has failed to respond to treatments described above. These include [acitretin](#), [methotrexate](#), [ciclosporin](#) and [biological response mediators](#).

## Related information

### References:

- Topical treatments for scalp psoriasis. Warren RB, Brown BC, Griffiths CE. *Drugs*. 2008;68(16):2293-302. doi: 10.2165/0003495-200868160-00003. [Medline](#).
- Chan CS, Van Voorhees AS, Lebwohl MG, Korman NJ, Young M, Bebo BF Jr, Kalb RE, Hsu S. Treatment of severe scalp psoriasis: From the Medical Board of the National Psoriasis Foundation. *J Am Acad Dermatol*. 2009 Jun;60(6):962-71. [Medline](#).

### On DermNet NZ:

- [General information about psoriasis](#)
- [Chronic plaque psoriasis](#)
- [Flexural psoriasis](#)
- [Guttate psoriasis](#)
- [Palmoplantar psoriasis](#)
- [Nail psoriasis](#)
- [Palmoplantar pustulosis](#)
- [Pustular psoriasis](#)
- [Erythrodermic psoriasis](#)
- [Psoriatic arthritis](#)
- [Treatment of psoriasis](#)

### Other websites:

- [Scalp psoriasis](#) – The Psoriasis Association (UK)
- [Scalp psoriasis](#) – National Psoriasis Foundation (US)

### Books about skin diseases:

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## Seborrhoeic dermatitis

### What is seborrhoeic dermatitis

Seborrhoeic dermatitis is a common, harmless, scaling rash affecting the face, scalp and other areas. It is most likely to occur where the skin is oily. The American spelling is 'seborrheic', and 'dermatitis' is sometimes called 'eczema'.

**Dandruff** (also called 'pityriasis capitis') is an uninfamed form of seborrhoeic dermatitis. Dandruff presents as scaly patches scattered within hair-bearing areas of the scalp.

Seborrhoeic dermatitis may appear at any age after puberty. It fluctuates in severity and may persist for years. It may predispose to [psoriasis](#). However, the plaques of psoriasis are more persistent, thicker, and a deeper red colour, with large flakes of white scale. Psoriasis is very likely to affect elbows and knees as well as the scalp. However, sometimes it is difficult to tell psoriasis from seborrhoeic dermatitis on the face, scalp and chest and your doctor may diagnose an overlap condition, known as 'sebopsoriasis'.

### What does seborrhoeic dermatitis look like?

Within the scalp, seborrhoeic dermatitis causes ill-defined dry pink or skin coloured patches with yellowish or white bran-like scale. It may spread to affect the entire scalp.

Seborrhoeic dermatitis is common within the eyebrows, on the edges of the eyelids ([blepharitis](#)), inside and behind the ears and in the creases beside the nose. It can result in pale pink round or ring shaped patches on the hairline.

Sometimes it affects the skin-folds of the armpits and groin, the middle of the chest or upper back. It causes salmon-pink flat patches with a loose bran-like scale, sometimes in a ring shape (annular). It may or may not be itchy and can be quite variable from day to day.



## Seborrhoeic dermatitis



## What is the cause of seborrhoeic dermatitis?

Seborrhoeic dermatitis is believed to be an inflammatory reaction related to a proliferation of a normal skin inhabitant, a yeast called [Malassezia](#) (formerly known as *Pityrosporum ovale*). The main species found in the scalp is *M. globosa*. It produces toxic substances that irritate the skin. Patients with seborrhoeic dermatitis appear to have a reduced resistance to the yeast.

Seborrhoeic dermatitis is not contagious or related to diet, but it may be aggravated by illness, psychological stress, fatigue, change of season and reduced general health. Those with immunodeficiency (especially infection with [HIV](#)) and with neurological disorders such as Parkinson's disease and stroke are particularly prone to it.

## Infantile seborrhoeic dermatitis

It is uncertain whether infantile seborrhoeic dermatitis is the same condition. This arises in newborn babies up to the age of six months. It usually presents as [cradle cap](#), but infantile seborrhoeic dermatitis may also affect skin creases such as armpits and groin (when it presents as a type of [napkin dermatitis](#)). Non-itchy salmon pink flaky patches may appear on the face, trunk and limbs in severe cases.





Infantile seborrhoeic dermatitis

## Treatment

Seborrhoeic dermatitis in adults may be very persistent. However, it can generally be kept under control with regular use of [antifungal agents](#) and intermittent applications of [topical steroids](#).

Infantile seborrhoeic dermatitis usually clears up completely before the baby is six months old and rarely persists after one year. If treatment is required, mild [emollients](#), hydrocortisone cream and / or topical [ketoconazole](#) are useful.

## Scalp

- Medicated [shampoos](#) containing [ketoconazole](#), ciclopirox, [selenium sulfide](#), zinc pyrithione, [coal tar](#), and [salicylic acid](#), used twice weekly for at least a month and if necessary, indefinitely.
- [Steroid](#) scalp applications reduce itching, and should be applied daily for a few days every so often.
- Tar cream can be applied to scaling areas and removed several hours later by shampooing.

## Face, ears, chest & back

- Cleanse the affected skin thoroughly once or twice each day using a [non-soap cleanser](#).
- Apply ketoconazole or ciclopirox cream once daily for 2 to 4 weeks, repeated as necessary.
- Hydrocortisone cream can also be used, applied up to twice daily for 1 or 2 weeks. Occasionally a more potent topical steroid may be prescribed.
- Topical calcineurin inhibitors such as [pimecrolimus cream](#) or [tacrolimus ointment](#) may also be useful.
- Severe cases may receive a course of [oral antifungal medication](#) or sometimes, [ultraviolet radiation](#).

## Related information

### On DermNet NZ:

- [Pityriasis versicolor](#)
- [Malassezia folliculitis](#)
- [Dermatitis](#)
- [Psoriasis](#)
- [Pityriasis amiantacea](#)
- [Malassezia](#)
- [Cradle cap](#)
- [Leiner syndrome](#)
- [Dermatitis online course for health professionals](#)

### Other websites:

- [Dandruff](#) – BMJBestTreatments; free access for New Zealanders subsidised by Ministry of Health



- [Seborrheic dermatitis](#) – emedicine dermatology, the online textbook
- [Seborrhoeic Dermatitis](#) – British Association of Dermatologists

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## Seborrhoeic keratoses

Seborrhoeic or seborrheic keratoses are very common harmless skin lesions that appear during adult life. Seborrhoeic keratoses may also be called basal cell papillomas, senile warts or brown warts.

Seborrhoeic keratoses are harmless and rarely or never become malignant.

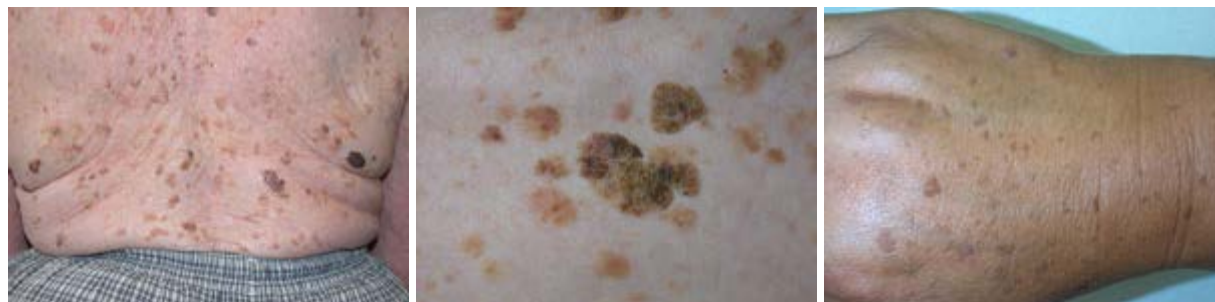
### What do they look like?

They begin as slightly raised, skin coloured or light brown spots. Gradually they thicken and take on a rough, warty surface. They slowly darken and may turn black. These colour changes are harmless but may result in the lesion looking like a [melanoma](#) (a type of skin cancer).

They appear to stick on to the skin like barnacles.

Seborrhoeic keratoses appear on both covered and uncovered parts of the body. There may be one or many of them.

Seborrhoeic keratoses







## What causes seborrheic keratoses?

The cause of seborrheic keratoses is not known. The name is misleading, because they are not limited to a seborrheic distribution (scalp, mid-face, chest, upper back) as in [seborrheic dermatitis](#), nor are they formed from sebaceous glands as is the case with [sebaceous hyperplasia](#).

Seborrheic keratoses are considered degenerative in nature, appearing as part of the [skin aging](#) process. As time goes by, seborrheic keratoses become more numerous. Some people inherit a tendency to develop a very large number of them.

They are not generally caused by exposure to the sun, although they can follow [sunburn](#) or other irritating skin conditions including [dermatitis](#).

[Skin cancers](#) are sometimes difficult to tell apart from seborrheic keratoses, so if you are concerned or unsure about any skin lesion consult your doctor.

Very rarely, eruptive seborrheic keratoses may denote an underlying internal malignancy. The syndrome is known as the [sign of Leser-Trelat](#).

## Other types of seborrheic keratosis

Variants of seborrheic keratoses include:

- Some solar [lentigines](#): flat brown marks in sun exposed areas
- Stucco keratoses: numerous small dry grey stuck-on lesions usually found on lower legs and feet
- [Dermatosis papulosa nigra](#): numerous brown warty papules on face, neck and chest of dark-skinned individuals
- Irritated seborrheic keratosis: inflamed lesion, often red and crusted; may resemble a skin cancer
- [Lichenoid keratosis](#): resolving keratosis or lentigo, often pink or grey-coloured

### Benign keratoses



Stucco keratoses



Dermatosis papulosa nigra



Irritated seborrheic keratosis

## Treatment



Seborrhoeic keratoses can easily be removed. The usual reason for removing a seborrhoeic keratosis is your wish to get rid of it. For example it may be unsightly, itch or rub against your clothes. Occasionally your doctor may recommend its removal because of uncertainty of the correct diagnosis.

Methods used to remove seborrhoeic keratoses include:

- [Cryotherapy](#) (liquid nitrogen) for thinner lesions
- [Curettage & cautery](#)
- [Laser surgery](#)
- [Shave biopsy](#) (shaving off with a scalpel)

## Related information

### On DermNet NZ:

- [Ageing skin](#)
- [Brown marks and freckles](#)
- [Benign keratinocytic and adnexal tumours](#) – common skin lesions course

### Other websites:

- [Stucco keratosis](#) – emedicine dermatology, the online textbook
- [Seborrheic keratosis](#) – emedicine dermatology, the online textbook
- [Seborrhoeic Warts](#) – British Association of Dermatologists

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## Solar keratoses

Rough scaly spots on sun-damaged skin are called solar keratoses. They are also known as "actinic keratoses". They should be distinguished from other kinds of keratosis (scaly spot) such as [seborrhoeic keratosis](#), [porokeratosis](#) and [keratosis pilaris](#).

### What are solar keratoses?

Solar keratoses are a reflection of abnormal skin cell development due to exposure to ultraviolet radiation. They are considered precancerous.

They appear as multiple flat or thickened, scaly or warty, skin coloured or reddened lesions. A keratosis may develop into a cutaneous horn.

They are very common on sites repeatedly exposed to the sun especially the backs of the hands and the face, most often affecting the nose, cheeks, upper lip, temples and forehead. On the lips they are often called actinic or [solar cheilitis](#). They are especially common in fair-skinned persons or those who have worked outdoors for long periods without skin protection. Sun-damaged skin is also dry, discoloured and wrinkled.

Solar keratoses







Many more images of solar keratoses ...

- [Keratoses on the face](#)
- [Keratoses on the scalp](#)
- [Keratoses on the hands](#)
- [Keratoses on the legs](#)
- [Keratoses treated with imiquimod](#)

## Are solar keratoses dangerous?

Solar keratoses themselves are harmless, but they can be uncomfortable and unsightly.

The main concern is that solar keratoses can give rise to a type of [skin cancer](#) called [squamous cell carcinoma](#). The risk of squamous cell carcinoma occurring in a patient with more than ten solar keratoses is about 10 to 15%.

Solar keratoses are usually removed because they are unsightly or uncomfortable, or because of the risk that skin cancer may develop in them. If a solar keratosis becomes thickened or ulcerated get it checked; it may have become a skin cancer. Squamous cell cancers often look like "volcanoes" erupting within the skin.

People with keratoses should visit their doctor regularly for examination as they are also at risk of developing [basal cell carcinoma](#) and [malignant melanoma](#). Referral to a [dermatologist](#) may be necessary.

## Treatment

Treatment of a solar keratosis requires removal of the defective skin cells. New skin then forms from deeper cells which have escaped sun damage.

It is not practical to remove all keratoses in those with very extensive sun damage; in such cases it is important to get rid of thickened or tender lesions as these are the ones at greatest risk of progressing to skin cancer.

Treatments may include:

- **Cryotherapy**  
Freezing with [liquid nitrogen](#) causes blistering and shedding of the sun damaged skin. Keratoses treated on the face peel off after about 10 days, those on the hands in about 3 weeks, but those on the legs can take as long as twelve weeks to heal. A light freeze usually leaves no scar, but longer freeze times (necessary for thicker lesions or early skin cancers) result in a pale mark or scar. The lesions may recur in time, in which case they may be retreated by the same or a different method.
- **Curettage & cautery**  
[Curettage & cautery](#) may be preferred with thicker keratoses, and is a common method of removing early squamous cell cancers. A specimen is sent for pathological examination. Curettage is the removal of a lesion by scraping it with a sharp instrument. Cautery or diathermy burns the keratoses off and prevents bleeding. A scab forms which heals over a few weeks, leaving a small scar.
- **Excision**



Cutting the lesion out ([excision biopsy](#)) makes sure the lesion has been completely removed, confirmed by pathological examination. This is sometimes important if a lesion may be cancerous. Usually the surgical wound is sutured (stitched). The sutures are removed after a few days, the time depending on the size and location of the lesion. The procedure leaves a permanent scar.

- **5-Fluorouracil cream**

[5-Fluorouracil cream](#) (5-FU, Efudix) is most useful when there are many keratoses on the face. The cream is applied onto facial skin once or twice daily for two to four weeks. The treated areas become red, raw and uncomfortable. Healing starts when the cream is discontinued, and the eventual result is usually excellent.

- **Imiquimod**

[Imiquimod](#) is an immune response modifier in a cream base. It is applied to areas affected by solar keratoses two or three times weekly for four to sixteen weeks. It causes an inflammatory reaction, which is maximal at about three weeks and then gradually settles down with continued use. The results are variable, but generally excellent.

- **Photodynamic therapy**

[Photodynamic therapy](#) (PDT) involves applying a photosensitizer (a porphyrin chemical) to the affected area prior to exposing it to a strong source of visible light. The treated area develops a "burn" and then heals over a couple of weeks or so. [Metvix PDT](#) is available in New Zealand.

- **Diclofenac gel**


Diclofenac in hyaluran gel has been used successfully to treat solar keratoses, and is well tolerated. This product is not available in New Zealand (August 2005).

## Prevention of keratoses

Solar keratoses may be prevented by protecting skin from ultraviolet radiation. If already present, keratoses may even improve with regular application of broad spectrum [sunscreen](#) to affected areas every day. [Sun protection](#) is vital for all fair skinned people working or enjoying themselves outdoors.

## Related information

### References:

-  [Guidelines for the management of Actinic Keratoses \(D de Berker, JM McGregor and BR Hughes\) BJD, Vol. 156, No. 2, February 2007 \(p222-230\) – British Association of Dermatologists](#)

### On DermNet NZ:

- [Skin cancer](#)
- [Bowen disease](#) (squamous cell carcinoma in situ)
- [Squamous cell carcinoma](#)
- [Basal cell carcinoma](#)

### Other websites:

- [ActinicKeratosesNet](#) American Academy of Dermatology
- [Actinic keratoses](#) – emedicine dermatology, the online textbook
- [Actinic keratosis](#) – British Association of Dermatologists

### Books about skin diseases:

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## Skin problems from stomas

Worldwide, millions of individuals have stomas. Skin problems relating to the stoma are extremely common.

### What is a stoma?

A stoma is a surgically created opening of the intestinal or urinary tract on to the body surface. Stomas most often open via a short spout onto the surface of the abdominal wall. They may be permanent or temporary (another surgical operation is required to rejoin the bowel).

- **Ileostomy** is an opening of the ileum (small bowel) and can be an end or loop stoma, most often placed in the lower right abdomen
- **Colostomy** is an opening of the colon (large bowel) and can be end or loop stoma, most often placed in the lower left abdomen
- **Urostomy** enables urine to be excreted, is always an end stoma and may be situated on the center, the left or the right side of the lower abdomen, the perineum or the flank. Urostomies include nephrostomy, ureterostomy, cystostomy, urethrostomy, ileal conduit and continent pouch/diversion depending on the site of the diversion and the type of surgery.

### Why is a stoma necessary?

Common reasons for an ileostomy include:

- Inflammatory bowel disease (ulcerative colitis, Crohn's disease)
- Intestinal polyps
- Bowel cancer
- Bowel infection (e.g. peritonitis)



Common reasons for a colostomy include:

- Bowel cancer resulting in obstruction or bleeding
- Inflammatory bowel disease
- Congenital developmental problems
- Bowel infection
- Trauma

Common reasons for a urostomy include:

- Congenital conditions e.g. spina bifida
- Cancer
- Obstruction from stones (calculus)
- Trauma

## What are the complications of a stoma?

Early complications may include:

- Inadequate blood supply (ischaemia)
- Retraction of the bowel back into the abdomen
- Separation of the bowel mucosa from the skin (dehiscence)
- Infection
- Bleeding
- An undesired passage between the bowel and the skin (fistula)
- Prolonged paralysis of the bowel (ileus), which if not treated may cause a swollen abdomen, vomiting, dehydration, electrolyte imbalance, kidney failure

Later complications may include:

- Prolapse of the bowel out onto the skin
- Scarring and narrowing of the stoma (stenosis)
- Leaking of bowel contents onto the skin resulting in irritation, erosion and digestion of the skin
- Bowel obstruction
- Excessive protrusion of bowel under the skin surrounding the stoma (hernia)
- Persistent infection
- Skin disorders ([see below](#))
- Varicose veins around the stoma
- High output of fluid from an ileostomy, causing dehydration and electrolyte imbalance
- Constipation or diarrhoea
- Cancer

## Stoma appliances

A specialist nurse will advise on the most appropriate appliance and will support a patient adjusting to life with a stoma.

The pouch may be pre-cut, or require cutting to the exact size and shape of the stoma to protect the surrounding skin from damage and to prevent leakage. The flange in contact with the skin is made of sticky hydrocolloid. The pouch is made of clear or flesh-coloured plastic.

Colostomy appliances may be a closed-end bag which can be changed once or twice each day, or an open-ended bag that may be drained as required. Ileostomy bags are drainable and changed every two or three days. Urostomy pouches



may also be drained as required and changed every two or three days. Bags may be one-piece or two-piece, closed or drainable.

Carefully designed products have the following properties:

- Comfortable soft low-irritant materials that don't rustle
- Adhesives that stick to irregular body contours without leaks
- A bag that is waterproof
- Odour-free, with integrated charcoal filter

## Skin care

- Cleanse the skin around the stoma with water alone, using a cotton wipe. If a [cleanser](#) is used, it should be thoroughly rinsed away. Avoid oily and perfumed products.
- Shave hairy areas about once a week, using a clean razorblade.
- If required, cover raw areas of skin with a thin hydrocolloid wafer before applying the stoma bag.
- If required, use barrier films, pastes or powder to protect the skin and manage leaks.

## Skin infection

Micro-organisms may proliferate because the stoma is warm, humid and soiled. They may colonise the stoma without causing disease. True skin infection is more likely if the patient suffers from general ill-health or [diabetes](#), or takes immunosuppressive medication.

[Bacterial infections](#) are confirmed by swabs. They may present as:

- [Secondary infection](#) of a surgical wound
- Bacterial [folliculitis](#) or [boils](#)
- [Impetigo](#)
- [Cellulitis](#).

Cleansing with an [antiseptic](#) may be sufficient. Treatment with specific oral [antibiotics](#) may be necessary to clear more severe infection.

[Fungal infections](#) may be confirmed by [skin scrapings](#). They may include:

- [Thrush](#) ([candida](#))
- [Tinea corporis](#) ([dermatophyte](#) infection)
- [Pityriasis versicolor](#) ([malassezia](#))

[Viral infections](#) may include:

- [Herpes simplex](#) (cold sores)
- [Viral warts](#)
- [Molluscum contagiosum](#)

## Inflammatory skin disease

The skin around a stoma may become inflamed (red, swollen, painful) because the stoma is leaking, because of an underlying skin disease, or because of infection.

Papules (small bumps) and nodules (large ones) can develop due to ongoing irritation, granulation tissue, viral warts, cancer or [Crohn's disease](#).



Ulceration may be due to trauma (surgery, appliance, clothing), wound breakdown ([pyoderma gangrenosum](#), malnutrition) or skin disease.

Skin rashes around stomas



Irritant contact dermatitis



Spreading autosensitisation reaction Pyoderma gangrenosum



## Irritant contact dermatitis

Unfortunately many people with a stoma suffer from skin irritation from time to time. The main causes are:

- Skin bathed in stoma effluent (bowel content or alkaline urine)
- Skin stripped by repeatedly removing the appliance
- Occlusion and humidity
- Friction or pressure from the appliance or clothing
- Pre-existing [sensitive skin](#) or dermatitis (especially atopic eczema)
- Application of irritating chemicals such as detergents, deodorisers or bleach in wipes and cleansers

The appliance may leak for the following reasons:

- It may be the wrong size
- It may be incorrectly sited
- There may be skin folds due to obesity or scarring from surgery
- Excessive sweating prevents sticking
- Underlying skin rash prevents it sticking to the skin properly
- The effluent may be excessive
- It may corrode the hydrocolloid

The result is [irritant contact dermatitis](#) i.e. red papules (small bumps) and plaques (larger thickened patches) and scaling. The dermatitis may affect a crescent area below the appliance or affect the whole area in contact with it. It may be very sore or itchy.

Treatment of the dermatitis may include:

- Modification of the appliance to improve the fit
- Filler paste to achieve a flat surface on which to stick the bag
- Hydrocolloid dressing under the bag
- Sucralfate powder dusted onto erosions
- Roll-on [antiperspirant](#) to reduce sweat
- [Topical steroid](#) ([see below](#))

Prolonged irritation may result in over-granulation (moist red thickened areas), warty papules and pseudoepitheliomatous hyperplasia (cancer-like growths). Treatment may include:

- Acidification of the urine and acetic acid compresses (dilute vinegar)
- Chemical cautery (silver nitrate stick) or [cryotherapy](#) (freezing) to destroy granulation tissue



- Surgery to refashion the stoma (rarely required).

## Allergic contact dermatitis

Allergy to acrylic adhesive or resin components of the appliance is rare. The appearance is similar to irritant contact dermatitis but [allergic contact dermatitis](#) affects all areas in contact with the appliance, and may also spread more widely to surrounding or distant skin.

Allergy may also be due to a deodoriser, [fragrance](#) or preservative such as [parabens](#), [kathon cg](#) or [imidazolidinyl urea](#) in a cleanser. If dermatitis is very persistent, [patch tests](#) should be performed to relevant allergens such as the standard series, glues and plastics, preservatives, fragrances and medicaments.

## Granulomas

Granulomas are lumpy lesions due to inflammation in the dermis. Stomal granulomas may be due to:

- Granulation tissue (poor wound healing and infection)
- Bowel metaplasia (stomal skin morphing into bowel tissue)
- Crohn's disease (a type of inflammatory bowel disease)

## Colour changes

The skin surrounding the stoma may be discoloured.

- Brown colour is usually due to [postinflammatory pigmentation](#) and fades in time
- Red, pink or mauve colours may be due to the growth of new blood vessels
- Other coloured stains may be due to urinary compounds

## Psoriasis

[Psoriasis](#) presents as patches of scaly red skin. It may arise around a stoma in patients who have psoriasis in other sites or who have a genetic predisposition to it. It is particularly common in patients who have inflammatory bowel disease. Stripping off the skin when the appliance is changed may provoke psoriasis (this is known as the Koebner reaction).

Plaques of psoriasis are generally sharply defined. They tend to extend beyond the stoma and may be more prominent outside it because the moist environment under hydrocolloid may be beneficial in treating psoriasis.

Psoriasis relating to a stoma may be treated with topical steroids ([see below](#)). Occasionally other treatments such as [phototherapy](#), [methotrexate](#) or [ciclosporin](#) may be necessary.

## Pyoderma gangrenosum

[Pyoderma gangrenosum](#) is a painful ulcerating skin disorder. It is sometimes associated with inflammatory bowel disease or cancer. The ulcers may be triggered by an injury to the skin, such as trauma from a tight appliance or surgery. This is known as pathergy.

- The ulcers may be shallow or deep
- They have a bluish undermined and ragged edge
- Surrounding skin tends to be red and swollen
- Healing ulcers result in cribriform scars (these appear to have small holes like a sieve).

Treatment may include topical steroids ([see below](#)), topical [tacrolimus](#), [systemic steroids](#), ciclosporin, [dapsone](#) and [minocycline](#). Further surgery should be avoided if possible, as it may provoke larger ulcers.



## Seborrhoeic dermatitis

[Seborrhoeic dermatitis](#) may appear similar to irritant dermatitis or psoriasis, causing a scaling pink rash around the stoma as well as other typical sites (scalp, behind ears, nose crease, chest, under arms and navel).

Treatment involves [antifungal lotions](#) and occasional courses of topical steroids ([see below](#)).

## Other skin conditions

The following skin conditions should be considered if a rash affects a stoma or there is delayed wound healing:

- [Seborrhoeic keratoses](#) (warty lesions)
- Cancer secondaries ([metastases](#))
- [Crohn's disease](#) (ulcers or cobblestone granulomas)
- [Malnutrition](#) (red cracks and sores)
- [Cutaneous vasculitis](#) (purple bumps called [purpura](#))
- Drug eruptions
- [Radiotherapy-related dermatitis](#)
- Surgical complications

## Topical corticosteroids

[Topical steroid](#) lotions or scalp solutions may be used directly onto the stoma when the bag is changed to treat inflammatory skin conditions including dermatitis, psoriasis and pyoderma gangrenosum.

- To avoid stinging, the solution can be applied onto the adhesive barrier of the stoma bag, and allowed to dry before the bag is put onto the skin.
- Creams and ointments are usually not practical as the appliance will not stick.
- If the desired preparation is only available in a cream formulation, it can be applied under a hydrocolloid or vapour permeable membrane, and the appliance can be stuck onto this.
- A paste formulation such as triamcinolone acetonide in orabase may be used to fill an ulcer.
- The topical steroid may be applied once daily for up to 3 to 4 weeks.
- If necessary, the topical steroid can be applied once each week as on-going treatment.

## Related information

### References:

- Abdominal stomas and their skin disorders; an atlas of diagnosis and management. Eds Calum Lyon, Amanda Smith. Martin Dunitz 2001

### On DermNet NZ:

- [Synthetic wound dressings](#)

### Other websites:

- [Ostomy Wound Management](#) Journal
- [Convatec Ostomy Care](#)
- [Stomas of the Small and Large Intestine](#) – emedicine



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## Vitiligo

Vitiligo is an autoimmune disease in which pigment cells (melanocytes) are destroyed, resulting in irregularly shaped white patches on the skin.

Any part of the body may be affected. Common sites are exposed areas (face, neck, eyes, nostrils, nipples, navel, genitalia), body folds (armpits, groin), sites of injury (cuts, scrapes, burns) and around pigmented moles ([halo naevi](#)).

The hair may also go grey early on the scalp, eyebrows, eyelashes and body. White hair is called 'poliosis'. The retina may also be affected.



Vitiligo







Mucosal vitiligo



Trichrome vitiligo



Poliosis

## Who is prone to vitiligo?

Vitiligo affects at least 1% of the population, and occurs in all races. In half of sufferers, pigment loss begins before the age of 20. In one fifth, other family members also have vitiligo.

Even though most people with vitiligo are in good general health, they face a greater risk of having other autoimmune diseases such as diabetes, thyroid disease, pernicious anaemia (B12 deficiency), [Addison's Disease](#) (adrenal gland disease) and [alopecia areata](#) (round patches of hair loss).

## What is the cause of vitiligo?

Melanin is the pigment that determines the colour of skin, hair, and eyes. It is produced in cells called melanocytes. If melanocytes cannot form melanin or if their number decreases, skin colour will become progressively lighter.

The cause of vitiligo is not known. It sometimes follows physical injury such as sunburn, or emotional stress. There are three theories on the cause of vitiligo:

- The pigment cells are injured by abnormally functioning nerve cells.
- There may be an autoimmune reaction against the pigment cells (the body may destroy its own tissue, which it perceives as foreign).
- Autotoxic theory - the pigment cells are self-destructive.

The severity of vitiligo differs with each individual. Light skinned people usually notice the pigment loss during the summer as the contrast between the affected skin and sun tanned skin becomes more distinct. People with dark skin may observe the onset of vitiligo any time. In a severe case pigment may be lost from the entire body. The eyes do not change colour. There is no way to predict how much pigment an individual will lose.

The degree of pigment loss can vary within each vitiligo patch which means that there may be different shades of brown in a vitiligo patch. This is called 'trichrome'. A border of darker skin may circle an area of light skin.

Vitiligo frequently begins with a rapid loss of pigment which may be followed by a lengthy period when the skin colour does not change. Later, the pigment loss may begin again. The loss of colour may continue until, for unknown reasons, the process stops. Cycles of pigment loss followed by periods of stability may continue indefinitely.

Other causes of white skin ([leukoderma](#)) include severe trauma, burns, and deep skin infections.

## Protection against injury

Those prone to vitiligo should be careful to minimise skin injury as it is common for healing to result in a new white patch at the site. The injury might be a cut, a graze, an area prone to rubbing. It has been reported to arise where jewellery or clothing items irritate the skin.



## Protection against sun exposure

The white skin needs [sun protection](#) because it can only burn, it cannot tan. The normal skin also needs protecting to prevent sunburn (which could cause spreading of the vitiligo), and to reduce the contrast between the normal and the white skin.

- Wear [protective clothing](#).
- Stay out of the sun at peak periods.
- Apply [sunscreen](#) (Sun Protection Factor 30+).

Sunburn in vitiligo



Images supplied by Dr Shahbaz A. Janjua

## Use of cosmetics

- Cosmetics are helpful to disguise the vitiligo ([cosmetic camouflage](#)). Dyes, stains and make-ups can be applied and with specialist help the results can be very satisfactory.
- [Dihydroxyacetone](#)-containing "tan without sun" products; take care not to apply to the normally tanned skin because this will also look darker.
- Water-resistant concealing make-up.

## Treatment

Treatment is currently not very satisfactory.

- [Topical steroid](#) cream. A potent anti-inflammatory cortisone cream may reverse the process if applied to the affected areas for a few weeks in their early stages.
- Calcineurin inhibitors such as topical [pimecrolimus](#) and [tacrolimus](#) have recently been shown to be safe and effective, and is especially useful on the face and neck where strong steroid creams may cause skin thinning.
- [Narrowband UVB phototherapy](#) is helpful in many patients, particularly in combination with calcineurin inhibitors, and perhaps with [calcipotriol](#) cream (usually used in [psoriasis](#)).
- [PUVA](#). This form of light treatment requires the patient to take a psoralen medicine and then be exposed to ultraviolet light (UVA). Gradual but partial repigmentation may results. Hands and feet respond poorly, faces and trunks do better. When the treatment is stopped, some of the pigment disappears again. PUVA takes less than five minutes twice weekly, and is continued for up to two years. PUVA is unsuitable for children or very fair skinned people. The pigment loss should have been present for less than 5 years.
- Surgical treatment. Experimentally some centres are removing the top layer of skin by various techniques (including dermabrasion or sandpapering) and replacing it with skin with normal pigmentation from another site. Some researchers have used the patient's own melanocytes grown in tissue culture. Good results are reported, especially if the vitiligo is stable.


## Depigmentation therapy



If a dark skinned person has vitiligo affecting a large part of the exposed areas, he or she may wish to undergo depigmentation. A cream containing monobenzyl ether of hydroquinone is applied to the skin. This causes all the skin to lose its pigment. Its effect is usually permanent.

## Related information

### References:

-  [Guidelines for the management and diagnosis of vitiligo \(DJ Gawkrödger, AD Ormerod, L Shaw, I Mauri-Sole, ME Whitton, MJ Watts, AV Anstey, J Ingham and K Young\). BJD, Vol. 159, No. 5, November 2008 \(p1051-1076\)](#)

### On DermNet NZ:

- [Leukoderma](#)
- [Skin pigmentation](#)

### Other websites:

- [Vitiligo](#) – Medline Plus
- [National Vitiligo Foundation Inc.](#)
- [Dr Kahn's surgical method](#) for repigmentation
- [Vitiligo](#) – emedicine dermatology, the online textbook
- [Vitiligo](#) – British Association of Dermatologists

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